An Address
ON
THE PHARMACOLOGY OF SOME SOUTH AFRICAN PLANTS.

Delivered before the Cape Town Medical Society on August 25th, 1899,

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[MR. MABERLY remarked at the outset that he was much indebted to Professor MacOwan, Government botanist, for having brought down the specimens which they saw around them, and, proceeding, said he was glad to have had the opportunity of bringing before the meeting a few of the known South African drugs that had to a certain extent some medicinal records, and some others which he hoped would eventually be proved to be of real value. There was a general opinion that there were many drugs in that country which were extremely valuable, and he believed that there were many that had peculiar action and some that were very valuable indeed, but at present they had not got far enough, and there were so few reliable records about South African drugs that they were not in a position to state that any one drug had been sufficiently proved to be worthy of being placed in the British Pharmacopœia. He dared to say that they had all noticed that there was a movement on the part of the Committee of the British Pharmacopœia to get as soon as possible an addendum from the various colonies of the drugs they thought to be most valuable, and it was on that account very useful to be able to bring forward a few drugs which they thought might be valuable, although for himself he would not suggest that the Committee of the British Pharmacopœia should at present add any of them to that compilation. He would rather suggest that although they had good drugs in that colony they should be further investigated, and if they could get the medical men of the colony to take up the matter and to collect records they would soon be in a position to bring forward some really valuable additions to the British Pharmacopœia from that country. A certain amount of literature was in existence dealing with South African medicinal plants. The earliest records were to be found in the well-known work entitled, "Travels in Europe, Africa, and Asia, between 1770 and 1779," of Charles Peter Thunberg, who was afterwards made Professor of Botany at the University of Upsala. He was a duly qualified medical man and he made a point of collecting all information upon local remedies. Scattered through his works there was a large amount of information regarding South African drugs, and a good deal of the information which they had to-day was derived from that book which was published over 100 years ago. Following that there was Dr. Mackrill, a medical man of repute at the Cape early in the present century, and he also took a deep interest in the subject and left a few manuscript notes which had never been published. In 1850 Dr. Ludwig Pappe, who was Professor of Botany at the South African College and Colonial Botanist, collected a large number of facts and data about African drugs, which he put together in a small work entitled "Floræ Capensis Medicæ Prodromus, or an Enumeration of South African Plants used as Remedies." In going through Dr. Pappe's little work he (Mr. Maberly) found that a very large amount of it was simply taken over from Thunberg, so that there was very little original matter in it, although it was really a standard work, and the first published with any idea of order and entirely devoted to the subject. It was prepared as an introduction to a collection of plants sent home to the Great Exhibition of 1851 by Messrs. Scheuble and Co., the leading druggists in Cape Town. Oddly enough, the other day he (Mr. Maberly) met the very old gentleman (Mr. Groom) who packed the specimens which afterwards appeared to have been lost sight of. They certainly went to the Exhibition, but nothing further was heard of them although they obtained a well-merited prize. Since then nearly another 50 years without any further record passed, when Mr. Andrew Smith, who was attached to the native institution at Lovedale, collected a good deal of information from Kafirs and back-country people whom he was brought in contact with. He published a good many new but loosely stated facts concerning African drugs. These three works of Thunberg, Pappe, and Andrew Smith contained almost all that was at present known about their native materia medica. And although Thunberg and Pappe were medical men they did not place on record any experiences of their own as regarded the physiological action of any one of the drugs. Their deductions were more generally collected from the statements of Hottentots, Bushmen, and old colonists. Coming nearer to their own day he would draw the attention of the meeting to a letter in the *South African Medical Journal* for August last. At the July meeting of the Cape Colonial Medical Council a discussion took place regarding a communication sent to the Committee of the British Pharmacopœia with regard to the proposed addendum, enumerating possibly valuable colonial drugs. It then appeared that Dr. Matthew Hewat had sent a letter to Dr. Attfield, the editor of the British Pharmacopœia, suggesting that certain drugs should be added. He (Mr. Maberly) had some difficulty in finding what those drugs were, but on referring to the *South African Medical Journal* for April last he found a letter from Dr. M. Hewat which evidently contained the names of the drugs which he had recommended. Mr. Maberly continued:]

Now, gentlemen, I may state at the offset that I differ very much from Dr. Hewat in some of his statements and it will be well to take the drugs mentioned in order. First, Monsonia ovata, which we will consider later. Secondly, Hyraceum, recommended as an excellent emmenagogue and proposed as a substitute for castoreum. This statement of Dr. Hewat's concerning hyraceum was taken direct from Pappe's "Prodromus" and he evidently had not been at the trouble to find out what has since been done respecting it. The medicinal virtues of this hyraceum, which was supposed by some to be a menstrual secretion of the hyrax or rock rabbit, seem to be singularly small. I will not trouble the meeting with a description of the microscopical examination and the chemistry of the drug, but I will read the concluding remarks made by Dr. Pereira in a paper on this subject communicated to the *Pharmacological Journal*,[1] whose careful work before arriving at any conclusions was known to the medical world at large—which were as follows: "With regard to the medicinal qualities of hyraceum I have very little to say. My sample is too small to enable me to make any experiments with it. I believe it to be inert and useless, but it has been supposed to resemble castor in its nature, odour, and medicinal properties. 'The action of hyraceum,' says Dr. Martigny, 'is exactly the same as that of American castor, for which it may be substituted.' But to say that hyraceum is equal to castor in medicinal qualities is, I believe, to say little in its favour, for in my opinion there is no valid evidence that castor possesses any medicinal power whatever. Considered from an anatomical and physiological point of view, both castor and hyraceum possess some interest, but as therapeutical agents they are worthless. The remedial use of sexual and anal excretions—e.g., castor, musk, civet, ambergris, album græcum, and hyraceum—belongs to the superstitious and absurd practices of a former age and the administration of such disgusting and useless substances should be banished from scientific medicine."

This, then, is the conclusion come to nearly 50 years ago by no less an authority than Dr. Pereira and since that time nothing has occurred to throw doubt on his statements. American castor is a secretion from the anal glands of the Canadian beaver. Thirdly, as to the "bitter appel," or, as it should be written, bitter melon. Dr. Hewat's reference with an out-of-date quotation of the Linnæan class and order—namely, "monœcia monodelphia"—was evidently taken from Pappe. This bitter melon is a most disagreeable racking purgative resembling colocynth, of very little use, and certainly not worth the trouble of adding to the British Pharmacopœia. Fourthly, Dr. Hewat recommends a Cape chamomile. Now chamomile is no longer retained in the

[1] Pharmacological Journal, vol. x., 1850, pp. 119 et seq.

British Pharmacopœia, hence there would be little opening for a Cape substitute. Fifthly, the use of slang-wortel, very plentiful in the Karoo, is also taken over from Pappe. We know nothing definite about this drug and it is impossible to find records of it. Sixthly, there is the Zulu "umkomo-komo," which might be a very useful anthelmintic, but we similarly have no direct knowledge of it. It is in colonial use in some parts in cases of tapeworm, but we could hardly suggest it to the British Pharmacopœia upon lay testimony and without definite research. Seventhly, as to the substitution of the Mylabris bifaciata or blistering beetle for cantharides, it might be all very well, but there has been no investigation of the matter and it is wrong to rush this sort of thing on to the Committee of the British Pharmacopœia and to ask them to accept drugs upon mere hearsay. It would have been much more useful if Dr. Matthew Hewat had referred Dr. Attfield to Pappe's work and let him see for himself the imperfect state of existing information regarding a Cape Materia Medica rather than to have picked out a few drugs from that work without indicating from what sources he had drawn all his information.

Leaving this subject we pass on to the consideration of some few drugs of which something more reliable has been recorded. At present only one Cape drug appears in the British Pharmacopœia and that is buchu.

[Some beautiful specimens of the three officinal species of the drug were exhibited.]

Unfortunately, another drug which used to be regarded officially has been struck out of the Pharmacopœia, and that is Cape aloes. It is a great pity, but I am afraid that it is to some extent the fault of the collectors. Its preparation has from the first been very carelessly carried out and left in the hands of Kafirs and Hottentots, so that the repute of the drug has been very much damaged. It is, however, still thought a good deal of on the continent, where it is preferred, and we might hope to see the Cape aloes again in the British Pharmacopœia when the drug is prepared in a more careful and systematic way.

I will now direct the attention of the meeting to some drugs upon which I have done a considerable amount of work and others of which I have medical records. The first is monsonia in its three varieties—viz., Monsonia Burkei, Monsonia biflora, and Monsonia ovata. I have before me copies of two articles which I contributed to THE LANCET,[2] entitled "Dysentery and its Treatment, with an Account of Six Years' Experience in the Transvaal and Matebeleland in the Use of Some Varieties of Monsonia as the Curative Agent." I will not trouble the meeting with all the records and it will suffice to say that monsonia was recorded by Thunberg and Pappe as being useful in dysentery and diarrhœa. Now my experience of the drug has been that it is not of much use for simple diarrhœa. The peculiar properties of the drug are chiefly manifest in forms of acute and chronic ulceration of the stomach or intestines. For six years I have used the Monsonia Burkei for all cases of tropical dysentery and I have treated over 100 cases with only one death. I supplement it with other drugs when necessary, but I rely upon it entirely for a specific action and I certainly have experienced astonishing results. At the time when I published those records I had no idea that Monsonia ovata differed from the other two species in form and distribution, growing most luxuriantly at or near the sea-level, whereas the Monsonia Burkei and Monsonia biflora grow only at altitudes of from 2000 to 4000 feet. Monsonia ovata is the species most easily collected and has consequently been the source from which most of the tinctures placed on the market by the manufacturing druggists have been prepared. Subsequent experience is proving that its medicinal qualities are far inferior to those of the scarcer high veld varieties with which I have obtained my results. Last year I sent a small quantity of first-class specimens of Monsonia ovata to Captain Holt, R.A.M.C., of the Deolali Hospital, India, with directions how to make the tincture, and at the same time I sent some similar plants to Messrs. Burgoyne, Burbidges, and Co., asking them to forward their tincture to Captain Holt. The latter, in a letter dated Sept. 28th, 1898, made the following statement: "Burgoyne, Burbidges, and Co. sent me some tincture, but I did not find it by any means so satisfactory as the tincture I made here with rum in the precise proportions and by directions you sent me, with the dried plants I received from you. ..... In some of the cases of typical dysentery it was extremely successful, but in one or two was somewhat disappointing and I am very anxious to give it a further trial." This brought out the fact that the tincture made by Captain Holt with rum was far better than that which he got from the manufacturing chemist in London; and I am very much afraid that many such drugs are injured in the process of preparation. In chemical laboratories manufacturing chemists have a habit of concentrating their tinctures, especially for export purposes, by distilling off the spirit and concentrating the tincture at the temperature of boiling alcohol, which is pretty high. In thus boiling the tinctures, to reduce their bulk I am of opinion that in the case of some drugs the valuable properties are endangered or lessened by decomposition. I have been unable to get further records of monsonia and I suspect that the chemist's tincture is made entirely from the low veld variety which is the least powerful. They could get large quantities of it about East London, but the other forms grow in a very scattered way, and I have been unable to get any collected, although I have used every effort for the last two years.

There were several species of allied plants belonging to the same order of Geraniaceæ—viz., the tuberous-rooted pelargonia which had been noticed by Thunberg as being useful in dysentery and diarrhœa. One of these has a suggestive name, Pelargonium antidysentericum (E. & Z.). It is the "T'Namie" of the Namaquas and is described by Pappe. I have only had limited experience of these tuberous pelargonia and was never able to find out the actual species I used, but I have recorded two cases in THE LANCET.[3] In one case in which I made a tincture from the dried root of one of these pelargonia I had remarkable results in the rapid cure of a long-standing and typical case of ulceration of the stomach. The other was a case of chronic dysentery in one of the Indian Medical Staff, also with a satisfactory result. This is interesting as showing that these drugs also contain valuable properties, but unless we get really good specimens of the right species a great deal of the work would be spoiled by the bad specimens and preparations put on the market by the manufacturing chemists. Then there is another drug—one which before this day has never seen the light. This is represented unfortunately by no more than a small piece of bark which I exhibit and which has a somewhat peculiar history. When I was in charge of the Klein Letaba Goldfields Hospital in Central Transvaal—one of the very worst districts for malarial bilious fever in South Africa—I had some beans belonging to this same tree given to me which came from a man who had obtained them when travelling through the low-veld from Delagoa Bay to the fields. The man's story of the beans was interesting. He was an old prospector, accustomed to low country fever, and he stated that when he was passing through the Lebombo Flats he had a violent attack of bilious fever and was laid up at a Kafir kraal. He had a couple of valuable greyhounds with him which were much noticed by an old Kafir doctor who came along and who promised to cure the patient of his fever if he would part with the dogs. The man, who had suffered from similar attacks before, would not agree to this and stated that he could cure himself. However, getting worse and losing faith in the prospect of his recovery, he sent for the Kafir doctor and promised him the dogs as a reward for a cure. The old fellow administered some of the beans with the result that in a couple of days the man was about virtually cured. He got some of the beans from the Kafir doctor and a few of them came into my possession. I subjected them to a fair trial. We had 200 white men in the mines, and, as illustrating the unhealthiness of the climate, I might say that during February, March, and April the workmen put in just one-third of their time. The remainder they took out in fever. After trying the beans and the bark I came to the conclusion that a dose of two grains was quite sufficient. This dose made into a pill with a quarter of a grain of opium I always rely on to cut short relapses of malarial fever both in my own person and those of my patients. The peculiar action of the drug lay in the fact that it had a most extraordinary power of collecting bile, and if the attack was at all well marked in half an hour the patient not only passed a lot of bile but also vomited a large quantity from the stomach. That, I am certain, is a particularly valuable

[2] THE LANCET, Feb. 6th, 1897, p. 368; and Feb. 13th, p. 433.

[3] THE LANCET, July 16th, 1898, p. 127.

drug, but I cannot trace it further. I got a few of the beans and out of six or eight which I planted I obtained one plant. Unfortunately, having to go away, I found on my return that the plant had been destroyed by hail. Afterwards a white man sent me some pieces of bark and a few beans, but they were incapable of germination. Then I tried again and found that Kafirs had been told by a native doctor that the trees, which were growing in a mealie field, were bewitched and had better, therefore, be destroyed. This was done with the result of a further disappointment. It was a pity it could not be traced, for it would be a very valuable remedy for the types of fever we get in southern tropical Africa. I have tried in London to analyse the bark with the assistance of a good chemist, but we could make nothing of it.

Coming to another drug, one that had attracted some attention in Cape Town lately, the Bulbine alooides (L.), Mr. Ernest Ralling, chemist, of Kloof-street, Cape Town, had taken a great interest in the drug and prepared a quantity of tincture from it. It is one that I never came across before. I saw Mr. Ralling the other day and was told that Dr. Paterson had used it in a couple of cases of rheumatism without fever and was very well satisfied with the result. I also have tried it in one case. The dose given was 20 minims of a 10 per cent. tincture made with spirit. Dr. Paterson came to the conclusion that it was useful for muscular and joint rheumatism without fever and my own case which I had attended in the early part of the present week was that of an old woman aged 60 years. Her temperature was normal, but she was very stiff in the right shoulder-joint and the right hip. I ordered her 20 minim doses of this tincture every four hours and next morning the old lady was walking about and the general result was extremely good. The drug had the action desired and I believe it would be very useful and suitable for those cases of rheumatism in which salicylates have little action. Dr. Paterson's results were very similar to my own.

In the *South African Medical Journal*[4] there is a report of a case of blood poisoning from anthrax treated at King William's Town Hospital with tincture made from a Kafir remedy—Blepharis capensis. This is the only case we have on record, but the plant has been known for years among the Kafirs and is mentioned by Mr. Andrew Smith as being used by them for anthrax. The following is an extract from the report of Dr. B. Blaine, the resident surgeon-in-charge. The author states that he had "heard of its successful use in Tembuland in a case of malignant pustule contracted by handling the hide of an animal which had died from anthrax. The local medical practitioner gave the patient up. A native supplied the Kafir remedy and a good recovery was made. Similar corroborative evidence was given by one of the magistrates. He states that he made a tincture of one part of the dried plant to eight of rectified spirit; 16 minims would represent two grains of the dried plant. On Jan. 2nd, 1897, a case of anthrax was admitted. The first sign was itching at a spot over the ribs on the right side of the chest on Dec. 31st. On admission the 'pustule' was typical, corresponding exactly with the description in Heath's Dictionary of Surgery. In short, there was no possibility of the disease being mistaken. The pulse was 82, feeble, and giving the impression of falling away suddenly from the finger. The temperature was 101°. Treatment was begun at once by the administration of 16 minims of the tincture mentioned every three hours. In the evening the temperature rose to 102·6°. Next morning it had fallen to 100·8°; the patient complained less of pain. At 2 P.M. the temperature rose to 101·8°. From this time it fell continuously, so that by six o'clock next morning it was 97·4°. This was just 42 hours after admission. There was no subsequent rise of temperature above normal. There was improvement in every way; the pains had disappeared, the swelling had subsided, leaving the pustule more distinct, its surface being covered with vesicles. The medicine was continued for some days longer, then given less often, and finally stopped. Some stimulant was given during the critical period, five times in all. I have since prescribed for another case, but as I did not see the patient it is better perhaps not to give any report of it except to state that the patient was nearly well when I last heard, some time after the onset of the disease." This surely is a plant worth further investigation and would lend itself easily to experimental research on animals subject to anthrax and might possibly be of use in other forms of septic infection.

Here is another drug, Callilepis laureola (D. C.), which I came across first in the Central Transvaal as a Kafir cough cure. The plant has a turnip-shaped root which emits a very pungent odour when cut into. The natives are in the habit of chopping off a small piece of the root and sucking it, and it really gives one the idea of being a good cough drug. The odour extends in the atmosphere for some distance, just as that of eucalyptus permeates a room. I have made a tincture of this particular drug in proof spirit and have used it in two or three cases of whooping-cough, and in two instances at least I have had very distinct results in quickly checking the cough. This is from plants collected during the dry season when the top of the plant is not growing. Afterwards I had a few collected during the growing season, but the results were disappointing. It might be due to the fact that they were collected at the wrong time. Then we have the Hyenanche globosa (E. M.), the most poisonous plant known in South Africa, which grows solely upon the Giftberg range near Clanwilliam. The record of it is that previously to the introduction of strychnine it was always used by farmers for poisoning hyenas. It probably contains a virulent poison similar to that of Croton tiglium (L.), and may also have a powerful medicinal action.

In conclusion, let me remark that I have brought these few facts before the Cape Town Branch of the British Medical Association in order to impress upon the medical world in general that they have in South Africa some really valuable drugs, but although I have spent time and money on the matter I have not been able to arrive at such satisfactory results as I desire. In the first instance we have to contend with the manufacturing chemist who directly he sees a published record of a drug puts upon the market a preparation of some sort, and in many cases it proves ineffectual. And moreover the specimens are not intelligently collected or consist often of different species taken indiscriminately, and consequently any man making a statement about the original drug lays himself open to have his records disputed and spoiled in consequence of the fact that the preparations put on the market by the chemists are not reliable and do not represent the drug fairly. There has recently been sent to me the following circular entitled: "Dysentery and its Treatment," taken from the *Domestic Monthly* of January, 1899. It runs as follows: "Many marvellous cures have recently been effected by the administration of a remedy known as 'monsonia' which is prepared from a South African herb. So many remarkable cures have been made with this drug that its reputation is rapidly spreading all over the world and a leading English physician has published a long account of the treatment of dysentery by this drug and has given a lengthy list of cases which have been cured. *The sole agents for the sale of this remedy are Messrs. Lennon, Limited.*"

This is the sort of thing that medical men have to contend with. Personally I consider it to be a gross piece of impertinence, but such is the recompense which one gets for making known records such as I have published and it would certainly make one chary of publishing. It must not be inferred that the medical man who makes the discovery has any part or lot in the proprietary preparation. He is simply the beast of burden who is being exploited. I have applied to the Colonial Secretary to see if the Government could be induced to support a proper investigation of the more valuable South African drugs. Unhappily, unless one is a man of means one cannot get cases and specimens, whilst physiological experiments involve time and expense which no one engaged in medical work can afford. The Colonial Secretary was inclined to take up the matter and help in supporting some proper investigations, but unfortunately the colony's finances are not at present of the best. Chiefly through my friends at home I have tried to get the Jenner Institute of Preventive Medicine to take up the matter, and I received a satisfactory letter last month from Dr. Macfadyen saying that as soon as the new board take over the management of affairs the proposal will have careful consideration. The only way in which any satisfactory conclusions can be arrived at will be by appointing a medical man to devote his time entirely to the subject. There would also be required the help of a competent botanist and of a

[4] South African Medical Journal, September, 1897, part v., vol. v.

sound analytical chemist. The results are sure to be interesting and productive of a distinct advance in certain lines of therapeutics.

ON PERIPHERAL NEURITIS AND RETINAL CHANGES IN DIABETES MELLITUS.

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AMONG the relatively infrequent clinical phenomena occasionally associated with the presence of grape sugar in the urine are symptoms dependent on changes in the nervous system and evidences of disturbance in the fundus oculi. The attempt to explain the facts of diabetes as consequences of vascular and perivascular changes in certain parts of the brain has not met with any considerable degree of success. But the clinician, not less than the pathologist, is alive to the degeneration to which the peripheral nerves are liable in diabetes mellitus and which, equally with the changes in the central nervous system, are doubtless due to the impaired nutritive value of the blood. The loss of the knee-jerk and the occurrence of neuralgias may be mentioned as fairly frequent results of (probable) peripheral neuritis of diabetic causation. Less commonly the evidences of nervous disturbance are of a still more conspicuous character, and though some of these—e.g., hemiplegia—strongly suggest a central cause, others almost certainly depend on the peripheral neuritis which has been proved to occur in diabetes by actual histological examination. Among this latter group are certain ataxic phenomena and the paralysis of individual muscles. Pavy[1] in 1887 noted the existence of sensory disturbances in a certain proportion of diabetic patients and described the occurrence of ataxia in walking, but without any disturbance of equilibrium as in Romberg's test. This observation has been confirmed by Buzzard,[2] Davies Pryce,[3] and by Fraser and Bruce,[4] and both Pryce and Bruce were able to demonstrate degenerative changes in the anterior and posterior tibial nerves. The combination of ataxia with loss of the knee-jerk forms a clinical picture which it is necessary to avoid confusing with that of tabes dorsalis, and the confusion is all the more easy if, as stated by Saundby,[5] the ataxic symptoms of diabetes may be associated with loss of the pupillary light reflex. And yet again, the similarity of the two conditions may be heightened by the development of perforating ulcer of the foot, as occurred in one of Buzzard's cases and in two of those reported by Pryce. The last-mentioned observer has also described an erythematous œdema which he regards as dependent on peripheral neuritis. And Raymond[6] reports the occurrence of herpes with facial paralysis in a diabetic patient.

With regard to definite muscular paralyses it seems necessary to distinguish between hemiplegic and other widely spread palsies and those of strictly limited distribution. The former must almost necessarily depend on a central nervous lesion, and though cases are recorded in which an opposite view is expressed none of these seem free from definite suspicion of hæmorrhage or other intracranial lesion. When the paralysis affects merely one limb or part of a limb there may be more room for doubt as to the site of the lesion, but as such paralyses are, according to Ross,[7] "often incomplete and may sometimes be so transitory as to pass off in a few hours," the balance of probability would appear to be in favour of their central causation. And this seems all the more likely when it is known that the brain tissue on post-mortem examination sometimes shows small cavities, as from atrophy of its tissue, whilst enlargement of the perivascular spaces as described by Dickinson[8] is not uncommon. When the distribution of the paralysis indicates that only a single nerve is involved the hypothesis of a peripheral neuritis is of course tenable, if not actually demanded. This is the position in the case reported below, where not only is the external rectus the sole muscle paralysed but the paralysis is absolute—two considerations pointing decidedly to a peripheral neuritis as the cause of the paralysis. Anderson[9] has reported a case in which some of the branches of the third nerve were alone attacked and most of the recent writers on the subject of diabetes include diplopia, strabismus, mydriasis, and ptosis among the occasional complications of the disease. It would also seem possible that single nerves other than those supplying the ocular muscles may be selected for local inflammatory attacks, as Althaus[10] has recorded a case in which severe pain in the area of the circumflex nerve was followed by atrophy and paralysis of the deltoid, the patient being the subject of glycosuria and all other possible causes of the neuritis being apparently excluded. Confirmation of this view is provided by Bruce's case already quoted, in which there existed a central scotoma in one visual field and the post-mortem examination revealed a band of degenerated fibres throughout the course of the corresponding optic nerve. It is at least interesting, and possibly very nearly related to the present subject, to note that a paralysis of the sixth nerve has been observed in a case of diabetes insipidus.[11]

The occurrence of changes in the fundus oculi in diabetes is now well established. These at first were attributed to albuminuria accompanying the condition of glycosuria, but no observer now questions their possible development in uncomplicated cases of diabetes. Many careful attempts have been made to establish a line of distinction between the ophthalmoscopic appearances of albuminuric and diabetic retinitis. It still, however, remains true that whilst certain features may be stated which afford a presumption more or less strong in one direction or the other, individual cases occur in which the appearances are ambiguous or in which the presumption is not justified by the event; indeed, the published descriptions of various authorities are by no means agreed on what are the features which are to be insisted on as "typical." Most of them, however, allude to the grouping of the whitish spots in the retina which may mark both diseases. The well-known stellate arrangement of these in lines radiating from the macula is generally regarded as indicative of albuminuric retinitis, and one of the interesting features of the case now reported is the existence of a similar though incomplete arrangement in a case of diabetes. Saundby[12] goes so far as to say that the patches of diabetic retinitis are "never fan-shaped"; according to Gowers[13] the star round the macula is seldom seen; whilst Stephen Mackenzie[14] describes the grouping of the white spots into constellations which are found "grouped round the macula but are not limited to that situation." The point is, of course, of little practical importance, for not even the most devoted adherent of the art of "spotting" would propose in any given case, at all events, to conclude his diagnosis without an examination of the urine. Still, accuracy is desirable, and the actual occurrence of a suggestive, if incomplete, stellate arrangement in a diabetic case is at least a warning against undue confidence in making distinctions.

Another feature in the ophthalmoscopic examination of the case now recorded is the development to a comparatively advanced extent of retinal disturbance in one eye with a normal fundus in the other eye. Occasional cases of uniocular albuminuric retinitis have been reported and in some of these it is said that only one kidney has been present—an instance of pathological neatness almost provoking suspicion. The limitation of retinitis to one eye in a patient with diabetes appears to be very rare. In a tabulated statement of recorded cases made in 1895 by Oscar Dodd[15] there is no parallel occurrence noted. Several of the cases in this table also show the practical impossibility of insisting upon an absolute distinction between the ophthalmoscopic appearance of albuminuric and diabetic retinitis. Apart from changes in

[1] Medical News, Philadelphia, 1887, p. 360.
[2] Brit. Med. Jour., vol. i., 1890, p. 1419.
[3] THE LANCET, July 2nd, 1887, p. 11, and Brain, 1893, p. 416.
[4] Brit. Med. Jour., vol. i., 1895, p. 1149.
[5] A System of Medicine, Clifford Allbutt, vol. iii., p. 218.
[6] Bulletin Médical, 1897, xi., p. 226.
[7] The Diseases of the Nervous System, by James Ross, M.D., second edition, p. 934.
[8] Diseases of the Kidney and Urinary Derangements, part i., p. 934.
[9] Ophthalmic Review, vol. viii., p. 38.
[10] THE LANCET, March 1st, 1890, p. 455.
[11] J. H. Lloyd, Journal of Nervous and Mental Diseases, vol. xxiii., p. 778.
[12] Medical Annual, 1897, p. 193.
[13] Medical Ophthalmoscopy, third edition, p. 228.
[14] Royal London Ophthalmic Hospital Reports, vol. ix., p. 134. See also Nettleship and Stephen Mackenzie; Transactions of the Ophthalmological Society, vol. vi., p. 331-3.
[15] Archives of Ophthalmology, 1895, p. 208.

the fundus oculi itself it has been observed that the retinal changes in diabetes are apt to be complicated with hæmorrhages in the vitreous; the existence of a central scotoma in the visual field has also been noted. Neither of these conditions existed in the present case. The patient presented herself at the outdoor clinique of the Central London Ophthalmic Hospital on Nov. 11th, 1897, and the record of the case is as follows.

The patient was a woman, aged 67 years. She complained of failing sight for the past 12 months and of double vision which came on suddenly, and pain in the right eye had been present for three weeks. There was absolute paralysis of outward movement of the right eye. Each lens showed numerous peripheral striæ (ordinary senile cataract). In the left fundus were two considerable patches consisting of yellowish white lustrous spots more or less confluent; each patch had a somewhat triangular or fan-shaped form, the apex being at the macula; there were also a number of isolated spots of a similar character scattered irregularly over the posterior part of the fundus. The right fundus appeared to be normal. There was no central scotoma in either visual field. The urine was pale, of specific gravity 1038, and contained a large quantity of sugar; there was no albumin. Physical examination of the thoracic and abdominal viscera was normal. Knee-jerks could not be obtained. The patient had enjoyed fairly good health except that within the last three years she had had two severe attacks of sciatica (each in the left limb) and six months ago she was confined to bed for some weeks with "weakness of the heart." Her husband died from angina pectoris 12 months ago. She had had nine children, of whom four had died from consumption. There was no history of gout or rheumatism in the family. She admitted that the daily amount of urine had been excessive for some six or seven years and that during the same time she had suffered from thirst; about four years ago she was told that she had diabetes.

The patient has been examined on several occasions since the above date. The urine has always had a specific gravity of 1030 or upwards and has contained much sugar; at no time has albumin been present. The paralysis of the right external rectus and the condition of the left fundus remained unchanged until the end of January, 1899, when the paresis had disappeared and the changes in the left fundus had become much more advanced; the right fundus still remained intact.

The diagnosis of the case is manifestly beyond dispute. The absence of albumin from the urine leaves the diabetic state entirely responsible for the condition of the fundus no less than for the peripheral nerve disturbances. These latter it will be noted include loss of the knee-jerks, paralysis of the right sixth nerve, and two severe attacks of sciatica. Saundby[16] draws attention to the occurrence of sciatica in diabetic subjects and says that bilateral sciatica is especially suggestive of diabetes.

Chenies-street, W.C.

THE EARLY DIAGNOSIS OF MYXŒDEMA.

By CHARLES W. CHAPMAN, M.D. DURH., M.R.C.P. LOND.,

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ALTHOUGH the modern treatment of myxœdema is most satisfactory, thanks to Mr. Victor Horsley, Dr. George R. Murray, and others who followed up von Eiselberg's experimental results, it is more than ever important that the disease should be diagnosed early, since thereby months or even years of incapacity for mental and physical work may be avoided. The clinical features of myxœdema have been so frequently described that there is a danger of the practitioner failing to recognise the disease unless the case before him agrees entirely with those descriptions. The comparative rarity of cases of this disease increases the liability to their being overlooked. Again, patients may be under observation for long periods without the real cause of their illness being discovered. This is due to the insidious and chronic nature of the disease. Under such circumstances a correct diagnosis may at times be made by a stranger who sees the patient for the first time because his eyes have not been blinded by familiarity with the very gradual oncoming of this disease. This, at any rate, is the only way I can explain the non-recognition of some cases of myxœdema that have come under my care. The following cases illustrate the difficulties of early diagnosis of myxœdema and it will be noticed in the first and third cases that I failed to recognise the disease when first consulted.

CASE 1.—A woman, aged 27 years, a nurse, came under my care in March, 1894. Her mistress asked my advice because the woman had been out of health for some years, and although she had been under the care of some leading practitioners no real benefit had accrued from the treatment. The patient complained of increasing weakness, anæmia, faintings in which sometimes her knees gave way and caused her to fall, loss of appetite, and frequent unfitness for her duties. The bowels were costive and the catamenia were scanty and pale. The patient's health began to fail in 1888, when she was 21 years of age. She became pale then and remained so up to the time that my advice was sought and iron had been taken more or less continuously ever since with but little benefit. An examination revealed nothing morbid beyond a bronchial catarrh—in fact, the case had every appearance of ordinary chlorosis. As I did not glean that arsenic had been given as well as iron I prescribed both drugs in combination. I ordered a liberal diet and insisted on perseverance with the treatment for several weeks. Some little improvement followed. Nine months after the first consultation I was asked to see the patient again because she was rapidly getting worse. She was unable to walk upstairs and could only crawl up on her knees. She had, moreover, fallen several times. Her condition at this time at once suggested myxœdema. The face was puffy, the hair was scanty, the abdomen was enlarged to 30 inches, the memory was failing, and the urine was free from albumin. Thyroid treatment was at once commenced; an improvement soon set in and the case progressed in the manner now so familiar to us all. The patient has since married and, with the exception of a miscarriage, has kept well. At my request she came to see me on June 28th, 1899, and she showed no signs of a relapse.

CASE 2.—A woman, aged 59 years, came under my care at the National Hospital for Diseases of the Heart, Soho-square, in September, 1896. She complained of giddiness during which she sometimes fell down, of inability to walk for more than five minutes at a time, of pain in the limbs and back, and of a sense of weight in the abdomen. She had not been well for 20 years, and had been decidedly ill for the last seven years. Four years previously she had first noticed her hair getting thin and wiry, and two years afterwards her face began to swell, especially under the eyes. Other symptoms were those of failing memory and a disinclination to do anything. There were also pain and swelling of the hands and limbs and thickness of speech. She was constantly under the care of two medical men who treated her chiefly with arsenic. As she was worse after seven years' treatment she consulted a third medical man who told her that she had a fatty heart and might die at any moment. The patient was a very large woman. Her malar eminences and her nose were red and the other parts of her face were pale. Her hands were broad and swollen, and she was puffy under the eyes. Her hair was thin and wiry on the head and was absent in the axillæ and elsewhere. She exhibited the characteristic mental condition and the action of her heart was slow. The case was diagnosed as myxœdema and treated accordingly. The improvement was rapid and marked and in about three weeks she was approaching the standard of health which she had enjoyed many years previously. At the expiration of nine months the patient gave up treatment, but she was compelled to resume it before long. In June, 1898, she was in perfect health.

CASE 3.—A woman, aged 42 years, came under my care in the National Hospital for Diseases of the Heart as an out-patient on Sept. 25th, 1897. She complained of præcordial pain, palpitation, and dyspnœa on exertion and she had to be propped up at night. She had not "been herself," she said, "for two years," and four months previously the symptoms began for which she sought advice. She had had rheumatic fever three years before. She was a big woman and rather pale; the tongue was flabby, the bowels were regular, and the catamenia were regular and excessive. Physical examination revealed nothing special beyond a feeble action of the heart and a little pulmonary catarrh. In the absence of any

[16] Loc. cit.

sign of valve lesion the patient was ordered an expectorant with small doses of digitalis, as it was thought that when the tone of the heart improved a bruit might be made out. In July, 1898, the patient went through a subacute attack of rheumatism. On her return to the hospital nothing fresh was observed in the heart. On May 12th, 1899, after an absence of ten months, she again presented herself and complained of giddiness which was so severe at times that she had to seek support to prevent herself from falling. Her memory was failing and she felt very cold, and her hair, which had always been very thick, was rapidly falling off. The heart's action was slow. The patient presented most of the usual signs of myxœdema, but the case was by no means a pronounced one. Thyroid treatment was at once adopted and an improvement was noted in the following week. In a fortnight the giddiness had disappeared entirely, by the end of June the hair was growing where it had been thin, and the patient said that she was quite well, able to attend to her household duties, and generally to lead an active life.

Remarks.—Case 1 shows that obstinate anæmia, even in a young woman, may be a forerunner of myxœdema and proves the importance of prompt action on the appearance of even one or two signs only of the latter disease. Certainly, whenever in the future I find an anæmic woman getting dull and falling about I shall watch carefully for any evidence of myxœdema. Case 2 emphasises the contentions contained in the early part of this paper. The patient's first two medical advisers probably looked upon the case as one of chronic anæmia which required a prolonged course of arsenic; while the third medical man diagnosed a fatty heart and sounded the death-knell. In Case 3 the patient had had rheumatic fever and although there was no positive evidence of the presence of heart lesion yet the symptoms following such a history rendered the existence of heart disease at least probable. Cardiac tonics were prescribed in the expectation that with returning strength a bruit might develop and so render the diagnosis more precise. In this, however, we were disappointed and it was not until the real cause of the patient's symptoms became more evident that a correct diagnosis was made.

I will conclude by calling attention to a diagnostic sign in early myxœdema which has proved useful in my hands. In chronic renal disease an early sign, when looked out for, is a certain sloppiness of the conjunctivæ which is best observed by pushing up the lower eyelid at the outer angle of the eye. This is known as "Bright's eye." In myxœdema a somewhat similar condition exists caused by the presence of mucin. When I find the conjunctivæ thus affected without any local cause I invariably examine the urine, and when this fluid is of normal specific gravity and is devoid of albumin I look out for myxœdema. I have more than once been put on the right track by these means.

Weymouth-street, W.

THE MANAGEMENT OF THE DEFORMITY OF HIP-DISEASE.

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THE desire to prevent or correct the deformity of hip-disease has given rise to a variety of operative and mechanical expedients. Among the latter I have applied with considerable satisfaction a method which may be said to consist in the education of the patient, wearing the American hip-splint,[1] to the habitual observance of the normal rhythm of locomotion. This method was briefly stated in THE LANCET of Dec. 22nd, 1888, pp. 1225-27. Having had its value confirmed by further experience I desire to present the subject again and more in detail.

The deformity and factitious (not to be confounded with the bony) shortening may be said to be caused by the patient's effort to keep the affected limb clear of the ground by elevating the pelvis on that side with adduction and factitious shortening as necessary accompaniments (flexion and adduction are here considered in the same category). The patient does this to avoid sudden and unexpected contact of the painful foot with the ground and to withhold the disabled limb from the ground in favour of the sound one, which hastens at each recurring step to assume an undue share of the work of sustaining the weight of the body in locomotion. The result is that the affected foot visits the ground for a moment only while the other foot lingers on the ground and the natural rhythm, or time, is destroyed. True time may be expressed as follows:

one—two—one—two—one—two—one—two—one—two,

and false time thus:

one—two——one—two——one—two——one—two——
one—two——one—two.

It is found that if the patient gives up false time and resumes true time by an effort of the will or as the result of drill the affected limb gives up some of its adduction and flexion in order the more conveniently to reach the ground to do its share of the work. With this come horizontal adjustment of the pelvis and decrease of shortening.

Violation of rhythm and the deformity appear to be incidents of Nature's method of protecting the diseased joint from traumatism by transferring a large part of the work of locomotion from the affected limb to the sound one. One of the advantages of the splint is that it furnishes complete protection with a return to the natural rhythm. This will demand sufficient strength in the apparatus to give to the body the support which it is accustomed to receive from a limb that is not affected. Patients who had recovered with serious lameness when instructed in this matter have overcome a large part of their lameness and deformity by learning to observe natural time in walking, a change which could not be accepted, of course, if bony ankylosis was the result of hip-disease. It is an interesting fact that throughout the early and active stages of the disease the position of the limb readily yields without pain to a slight amount of continuous force. Even after recovery the condition is far from immobilisation or obstinate fixation.

It may be said, by the way, that the rhythm of human locomotion is a subject which has probably not received the attention to which it is entitled. The very simplicity of the normal rhythm makes a slight deviation very noticeable, as in the incipient lameness of a child, who simply accentuates the blow given to the ground by the hastening non-affected foot. Violation of rhythm is one of the constituents of lameness. Lameness in general is essentially asymmetrical walking, symmetry of gait requiring similarity of the two limbs, not only in length and relation to the rest of the body, but also in movement. It is a point of practical importance that the lame needlessly add to their lameness by neglecting to keep correct time with their feet. A person who is well can pass for lame by the simple device of giving more time to one foot than to the other—a matter capable of instant demonstration; and one who is seriously lame can lessen the appearance of being so by observing the natural rhythm of locomotion. An interesting and practical question forms itself thus: Why do patients similarly affected and treated alike recover with such different degrees of deformity? The method here presented is the result of seeking an answer to this question with the help of the light thrown on the subject by facts like the following.

A young girl was in the third stage before treatment was begun. She recovered in due time with no adduction, almost no flexion, and very little lameness—a result apparently due to the fact that she was an only daughter and was always in the presence of her anxious mother, so that every step she took wearing the hip-splint was taken under the necessity of appearing as well as she could. Her steps were timed equally and the affected limb assumed and retained a useful position because it had to do, so far as was possible, one-half of the work of locomotion.

A boy recovered from the disease in a more moderate form, but he limped about most awkwardly with 20 degrees of adduction and 50 degrees of flexion—a bad position which is explicable by the fact that his mother, an accomplished and industrious woman, was out of the house every day attending to business and leaving at home all day a family of four boys. As the patient was most of the time in excellent general health he shared all the games of his brothers and developed the limb which was well at the expense of the affected one, which was elevated and adducted to keep it out of the way.

Another patient who recovered after long-continued

[1] Transactions of the Ninth International Medical Congress, 1887, vol. iii., pp. 642-645.

FIG. 1.

FIG. 2.

CASE 1.—Duration of disease before treatment 19 months; under treatment two years and five months. Photographed in 1879, six months after treatment. Aged nine years.

FIG. 3.

FIG. 4.

CASE 1.—Photographed in 1899, 20 years after treatment. Aged 29 years.

FIG. 5.

FIG. 6.

CASE 2.—Duration of disease before treatment four years; under treatment four years. Photographed in 1879, 18 months after treatment. Aged 13 years.

FIG. 7.

FIG. 8.

CASE 2.—Photographed in 1899, 20 years after treatment. Aged 33 years.

purulent discharges from many sinuses was a girl endowed with uncommon beauty and although she was far from docile and under very little restraint at home her vanity led her to try to appear to the best advantage and, thanks to her careful gait and studied attempts to be graceful, she now walks with very little lameness, with flexion of not more than 10 degrees, and no adduction.

On considering these and similar cases it seemed reasonable to suppose that if a patient escaped deformity by walking naturally and gracefully as a matter of chance or good luck, patients should as a rule reach the same good result by adopting the same manner of walking through instruction and drill. In the application of this thought in practice the hip-splint proves to be a valuable help. It may be said (1) to secure fixation and relief from pain by making traction on the joint; (2) to protect the joint from the violence incident to locomotion; (3) to take the patient out-of-doors from the sick-room; and (4) to encourage a return to symmetrical walking with reduction of deformity. In these circumstances it sometimes happens that patients not too far advanced in the disease recover with normal motion in the joint. In such cases the question of the management of deformity is happily shut out.

The illustrations represent the conditions after treatment of two patients who recovered after having been far advanced in the third stage before treatment was begun. The severity of the disease is attested by the scars and the bony shortening. Shortening due to faulty position of the limb is almost entirely absent. The same results have been observed in cases of moderate severity, a number of which have been collected and reported.

To make application of this method in private practice especial attention may be paid to the habitual gait of the patient. The precision of a military exercise should be imparted to the act of walking. A girl should practise deportment in front of the looking-glass and the parents should be informed of the importance of encouraging the child to adopt deliberate and graceful movements on all occasions. In orthopædic charities patients equipped with the hip-splint might conveniently be formed into companies in which military drill would without much doubt secure in a large proportion of the cases a final good position of the limb, remembering that complete success will depend largely on an exact adjustment of the apparatus.

New York.

SOMATOSE AND MEAT EXTRACTS.

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A LARGE number of meat preparations do not contain the nutritive constituents of the meat, or only contain them in very small proportions, whereas, on the other hand, they contain such quantities of extractives as tend to derange digestion and to impair the action of the kidneys. The advantages of having a meat nutrient which contains the albumin in a soluble and readily assimilable form are obvious in the treatment of those patients in whom the digestive powers are more or less in abeyance. It was at one time considered that this end had been attained by the conversion of albumin into peptone. It is, however, now doubtful whether the organism is able to reconstruct albumin in the tissues from peptone—in other words, it is doubtful whether peptone possesses any or much nutritive value. Moreover, the disagreeable bitter taste of peptone considerably militates against its employment as a food for invalids.

The albumoses are the intermediate products in the conversion of albumin into peptone. They are free from taste, are readily soluble, are easily absorbed by the system, and are then reconverted into albumin. In addition, the albumoses, or at all events deutero-albumose and hetero-albumose, are believed to produce no disturbances of the digestive system such as are so frequently caused by peptones. It would therefore appear that where a pre-digested meat preparation is required for invalids the albumoses represent the most readily assimilable and useful form of nitrogenous matter. Somatose is a meat preparation in which the albumin of the meat is mainly converted into albumoses. It is a yellow powder, freely soluble in water, and forming a practically tasteless solution. In its form as a powder it practically represents meat almost desiccated, the albumin of which has been mainly converted into albumoses. This is shown by the following results of an analysis that we have made of the preparation which shows the amounts of its more important constituents:—

Deutero-albumose	51·60 per cent.
Hetero-albumose	13·40 ,,
Peptone	5·00 ,,
Water	11·04 ,,
Mineral matter	5·02 ,,

It is not contended that a person's life could be sustained by exclusive feeding on this substance which only purports to be a useful adjunct to other foods and which, though in itself of direct nutritive value, is also a stimulant to the digestive functions and a substance which therefore enables patients to tide over critical stages of illness. Many experiments have been conducted by others, which show that somatose is well borne by invalids, that it produces no disturbances of the digestive system, and that persons taking it along with other suitable food gain in weight and in strength. In view of the medical uses to which this preparation might be put as a meat nutrient we have been requested to investigate its effects on patients suffering from various diseases and on convalescents, so as to observe its influence on nitrogen elimination, and, what is of much greater importance, to ascertain whether its administration to such patients ever causes albuminuria, albumosuria, or peptonuria. It is evident should any one of these morbid conditions be produced that the employment of albumoses is to be deprecated.

In order to determine these various points several patients suffering from various diseases or in various stages of convalescence were selected. Each one was kept as far as possible on a constant diet throughout the duration of the experiments. In the case of each patient the daily excretion of urea and uric acid was determined for two or three days prior to the administration of somatose and the presence or absence of albuminuria, albumosuria, and peptonuria was ascertained. Each patient was then put on somatose and the daily output of urea and uric acid in the mixed urines of the 24 hours was determined. The urine was also carefully examined each day for albumin, albumoses, and peptone. The amount of somatose given was generally one teaspoonful three times a day, in addition to the other diet suited to the individual cases, but in the case of No. 1 patient one teaspoonful was given every four hours, and in the case of No. 2 patient the same amount was given four times a day. The somatose was given dissolved either in milk, tea, or water, in which, as we have said, it readily dissolves. The results are given in the following tables, in which, as the number of determinations of urea and uric acid made was very large, the averages before and during the administration of somatose are for the sake of brevity only given.

No. 1.—Patient aged 16 Years; Pneumonia; Temperature from 100° to 104° F. during the three days prior to the Administration of Somatose, which was Administered as soon as the Crisis Occurred.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of three days prior to administration of somatose...	23·05	0·021
Average of seven days after administration of somatose	32·13	0·074

Qualitative examination of urine.—The urine before, during, and after the administration of somatose was quite free from albumin, albumoses, and peptone.

No. 2.—Patient aged 16 Years; Convalescent Typhoid.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of three days prior to administration of somatose...	32·08	0·044
Average of seven days after administration of somatose	24·21	0·193

Qualitative examination of urine.—The urine before, during, and after the administration of somatose was quite free from albumin, albumoses, and peptone.

No. 3.—Patient aged 55 Years; Severe Anæmia, probably due to Abdominal Carcinoma.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of two days prior to administration of somatose	9·04	0·092
Average of eight days after administration of somatose	12·59	0·108

Qualitative examination of urine.—A very faint trace of albumin was present before the administration of somatose. This remained throughout the experiments, but, if anything, diminished in amount during the administration of somatose. The urine throughout was quite free from albumoses and peptone.

No. 4.—Patient aged 53 Years; Chronic Gastric Ulcer with Hæmatemesis.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of two days prior to administration of somatose	24·33	0·574
Average of eight days after administration of somatose	28·60	0·394

Qualitative examination of urine.—The urine throughout was quite free from albumin, albumoses, and peptone.

No. 5.—Patient aged 11 Years; Tuberculous Peritonitis.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of two days prior to administration of somatose	24·62	0·496
Average of eight days after administration of somatose	25·16	0·477

Qualitative examination of urine.—A faint trace of albumin was present prior to the administration of somatose, but it disappeared on the second day of administration and did not return. The urine throughout was quite free from albumoses and peptone.

No. 6.—Patient aged 42 Years; Lymphadenoma.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of three days prior to administration of somatose	20·34	0·063
Average of eight days after administration of somatose	28·97	0·318

Qualitative examination of urine.—The urine throughout was quite free from albumin, albumoses, and peptone.

No. 7.—Patient aged 34 Years; Empyema.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of two days prior to administration of somatose	23·56	0·205
Average of eight days after administration of somatose	22·30	0·306

Qualitative examination of urine.—The urine throughout was quite free from albumin, albumoses, and peptone.

No. 8.—Patient aged 27 Years; Phthisis with Hæmoptysis.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of two days prior to administration of somatose	23·00	0·268
Average of five days* after administration of somatose	21·12	0·186

* Patient left hospital at this time at own request.

Qualitative examination of urine.—The urine throughout was quite free from albumin, albumoses, and peptone.

No. 9.—Patient aged 21 Years; Gastric Ulcer and Hæmatemesis. (For the first three days the patient was fed solely on nutrient enemata, afterwards somatose was given with liquid food by the mouth.)

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of three days prior to administration of somatose	21·05	0·364
Average of five days* after administration of somatose	28·92	0·408

* Patient left hospital at this time at own request.

Qualitative examination of urine.—A faint trace of albumin was present before the administration of somatose. This gradually diminished after the administration and on the fifth day had entirely disappeared. The urine throughout was quite free from albumoses and peptone.

No. 10.—Patient aged 16 Years; Mitral and Tricuspid Regurgitation.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of three days prior to administration of somatose...	23·45	0·246
Average of eight days after administration of somatose	28·26	0·565

Qualitative examination of urine.—The urine throughout was quite free from albumin, albumoses, and peptone.

No. 11.—Patient aged 15 Years; Typhoid Fever.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of three days prior to administration of somatose...	45·55	0·921
Average of eight days after administration of somatose	24·56	0·531

Qualitative examination of urine.—A faint trace of albumin was present before the administration of somatose. This gradually diminished after the administration and on the fifth day had entirely disappeared. The urine throughout was quite free from albumoses and peptone.[1]

No. 12.—Patient aged 37 Years; Phthisis.

—	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of three days prior to administration of somatose...	17·58	0·447
Average of eight days after administration of somatose	16·73	0·316

[1] These results are of special interest as showing the excessive nitrogen elimination (from tissue waste) that took place at first during the eleventh, twelfth, and thirteenth days of the fever. After the administration of somatose the nitrogen elimination, though still in excess as regards the urea, gradually diminished.

Qualitative examination of urine.—A very faint trace of albumin was present before the administration of somatose, but it diminished in amount during the administration. The urine throughout was quite free from albumoses and peptone.

No. 13.—Patient aged 28 Years, Sub-diaphragmatic Abscess.

	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of two days prior to administration of somatose	14·82	0·444
Average of ten days after administration of somatose	22·32	0·618

Qualitative examination of urine.—A faint trace of albumin was present before the administration of somatose. This gradually diminished after the administration and on the tenth day had entirely disappeared. The urine throughout was quite free from albumoses and peptone.

No. 14.—Patient aged 58 Years; Carcinoma of the Stomach.

	Daily excretion in grammes of	
	Urea.	Uric acid.
Average of two days prior to administration of somatose...	11·83	0·197
Average of nine days after administration of somatose	12·64	0·169

Qualitative examination of urine.—A faint trace of albumin was present before the administration of somatose. This gradually diminished after the administration and on the ninth day had entirely disappeared. The urine throughout was quite free from albumoses and peptone.

On averaging all the results of these experiments it is seen that there is a slight increased elimination of both urea and uric acid during the administration of somatose.

CONCLUSIONS.

As the result of our observations and experiments we have arrived at the following conclusions: (1) that somatose is a true meat nutrient possessing restorative and stimulating powers; (2) that it is well borne by delicate patients; (3) that it improves digestion and causes no gastro-intestinal disturbances; (4) that it has a favourable effect on general metabolism; and (5) that it has no irritant effect on the kidneys and that it never gives rise to albuminuria, albumosuria, or peptonuria In those cases in which albuminuria existed prior to the administration of somatose the albumin gradually disappeared from the urine during its administration.

[We may point out that the following note on the analysis of somatose from THE LANCET Laboratory appeared in THE LANCET of Feb. 2nd, 1895, p. 294: "The name 'somatose,' according to our examination of the substance to which it is applied, may be regarded as a substitute for albumose and is derived, we suppose, from the Greek word σῶμα, signifying the body. The preparation consists substantially of about equal quantities of deutero- and hetero-albumose, with mere traces only of peptone. It yields a nearly clear and almost tasteless solution which responds to all the known tests which distinguish albumose from true peptone. A saturated solution of ammonium sulphate throws down practically the whole of the proteids from the aqueous solution. Analysis gave the following results: moisture, 11·50 per cent.; solid matter, 88·50 per cent.; albumose, calculated on 12·30 per cent. nitrogen, 77·49 per cent.; mineral matters, 5·00 per cent. It may be remarked that, although the amount of mineral matter is high, yet it contains a disappointing proportion of soluble phosphate—less than half per cent. of the whole substance—the bulk of it consisting of alkaline carbonates. Nevertheless, we think somatose is a valuable nutritive agent and may be employed with unquestionable advantage as a food adjuvant. It is, of course, especially indicated in impaired digestive function and its completely neutral taste is an important and noteworthy characteristic."—ED. L.]

LEPROSY IN MADEIRA.

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THE belief that leprosy is maintained and diffused by direct or indirect communication with the sick person recommends itself to the general mind. It is a habit, for it is as old as history itself; it furnishes an apparently commonsense explanation of the fact, otherwise obscure, that leprosy is maintained; and it even follows naturally on reasonings about the bacillary nature of the disease, provided only that they are strictly *a priori*. Moreover, it indicates a preventive measure which must be effectual *ex hypothesi*—a pitiless and lifelong imprisonment of the afflicted; and although the salient feature of this plan is a renascence in the nineteenth century of the product of mediæval ignorance into mediæval egoism, those whose minds are taken up with the feelings just mentioned cannot be expected to see it. It is well, therefore, occasionally to recollect that the maintenance and diffusion of leprosy by direct or indirect communication with the sick person has never been demonstrated or even rendered extremely probable by unassailable epidemiological observations.

Doubtless this statement will surprise many. All depends, however, on what is to be accepted as evidence. The assumption that leprosy is maintained by communication with the sick has formed the basis of so many Acts of Parliament that there is danger of the etiological problem coming to be regarded as a mere point of law; indeed, it has been unconsciously treated in that light by many medical writers whose special pleadings and abundant precedents might well win a verdict. The question, however, is one of fact. The experimental method alone can furnish the answer, and although epidemiology is little likely to yield a demonstration in this case it is yet capable of helping it on. It can do this in two ways: it can afford important indications and, above all, it can break down a prepossession which is commonly entertained and which, whether it ultimately turn out to be justifiable or not, obstructs discovery. The sole condition of that measure of success is that the multitudinous details which go to make up an epidemiological study shall all be ascertained. Very often, indeed, the most important details have either been altogether neglected or else left unestablished. Sometimes the conditions of inquiry—the large size of the area chosen, the density of population upon it, and others—have been such as to prevent the whole of the facts from being learnt or, if learnt, from being grasped and managed. An isolated leprosy area of small size and moderate population whose inhabitants were civilised, of homogeneous race, and classified only by the minor distinctions of occupation, urban or rural residence, &c., would afford the best chance of success. The island of Madeira is precisely such a leprosy area and in order that a useful account of it should be forthcoming it was only necessary that a competent physician who by long residence and extensive medical occupations had become literally familiar with all the circumstances of daily life there should be sufficiently interested in the subject to write upon it. When, therefore, I became acquainted with the work in which Dr. Julius Goldschmidt[1] recounted his experience of leprosy in Madeira I perused it with interest. Its epidemiological and etiological notes seemed to me worth general attention and I now offer the following abstract of them, in the course of which I have interjected two or three remarks which I have distinguished by brackets.

Origin of the disease.—From a manuscript of the sixteenth century written by Gasparo Fructuoso and entitled "As Saudades da Terra," by which the author was guided in his attempts to learn the origin of leprosy in Madeira, it appeared

[1] La Lèpre: Observations et Expériences Personnelles. Par le Docteur Jules Goldschmidt. Paris, Société d'Éditions Scientifiques, 1894.

that the island was discovered in the year 1419 and was then found to be inhabited. It was forthwith used as a kind of convict settlement by Portugal. Less than 86 years from the date of occupation the establishment of a lazaret became necessary in accordance with the usage of the time in all Christian countries. Among those who were deported as criminals or for other reasons left their native land for Madeira there must have been ("il se trouvait fatalement") many lepers. Besides, the colonists visited Morocco, both to fight against Islamism and to get the slaves who in that military age formed the chief means of cultivating the soil. That part of Africa harboured many lepers then, as it still does. Thus the fact of the direct introduction of leprosy to Madeira and its persistence there during four centuries with all its essential characters unchanged can be affirmed.

Course of the disease.—At the beginning of the present century leprosy was very common in Madeira, but during the latter half it has much diminished. It has never disappeared; on the contrary, Dr. Goldschmidt thinks it has begun to increase again during the last 30 years, concurrently with a considerable increase of population and a consequent greater difficulty in supporting life.

Prevalence of the disease.—The only available documentary evidence is the admission book at the lazaret—the same already mentioned and the only one on the island—which began to be kept in 1830; and the account it furnishes does not represent the true state of the population as to leprosy. In older times lepers with a competency were allowed to remain at home if they desired it, though they were obliged to wear a distinctive dress themselves and their relatives and servants had to wear a square of yellow material on the breast; but poor lepers were forcibly removed to the lazaret from all parts of the island up to 30 years ago. During the last 30 years all lepers have been perfectly free to enter or leave the lazaret as they pleased. The number of admissions for leprosy from 1830 to the end of the year 1890, according to the record mentioned, was 224; and the average number of admissions for the 22 years from 1840 to 1861 was 24.[2] From the year 1861 the annual number of new cases has fallen, and during the last 15 years only two fresh cases have been admitted.

Present extent of the disease.—At the present date there are just about 70 lepers on the island, or 6 per 10,000. [The way in which this information was got is not mentioned.]

Geographical distribution of the disease.—The area of Madeira is only about 484 square miles and its total population is about 120,000. It is interesting to note, therefore, that leprosy does not exist in equal intensity in all parts. It exists and even increases in some districts while it decreases in others, and even disappears altogether from some of them. For instance, the village of Ponta do Sul and its environs has always ("de tous les temps") been the locality most heavily stricken; it has furnished nearly a third of all the cases admitted to the lazaret since 1830; but Funchal, the capital, has not contributed more than a comparatively small number—1·64 out of 1000 inhabitants to 4·02 out of 1000 inhabitants of Ponta do Sul [but since numbers are mentioned these remarks can apply only to the period from 1830 onwards]. It is easy to show that leprosy persists and increases with insanitary conditions and *la misère* and decreases and disappears with improved circumstances of food and cleanliness. Thus the north of the island, which is the richer and the better cultivated, is nearly free from leprosy, while the southerly portion continues to be infested. To the same condition of greater poverty is to be ascribed the fact that the rural population yields more cases than the urban population, scattered though it is.

Geological formation of Madeira.—This is uniformly volcanic—a basaltic structure containing beds of trachyte and pumice; there are no sedimentary strata anywhere. The slopes are everywhere extremely steep and water rushes over them in torrents. Cultivable earth is furnished exclusively by slow decomposition of the rock. Without going into further detail it may be said that the formation has no influence on the appearance and persistence of leprosy. [But where is the evidence that it had not as much influence on the appearance of leprosy as on that of the forms of vegetable life?]

Water.—Drinking-water is absolutely pure whenever it is drawn from a spring. But the physical conditions necessitate irrigation, which is effected by little channels called "levadas" and it is from the levadas, which in their long and winding course receive all sorts of filth, that drinking-water is usually taken. Dr. Goldschmidt has traced cases of typhoid fever along the whole course of some of these channels. The body-linen of lepers is not disinfected and it is washed either in the levadas or in the mountain streams which feed them. This may certainly contribute to spread leprosy.

Altitude.—The greater the altitude the greater the incidence of leprosy. But this is to be explained through the poorer, rougher, and dirtier conditions of life among the mountaineers; these become more and more marked up to an altitude of 2500 feet, above which there are no habitations.

Food.—This seems to exercise no influence so far as its quality goes. In general the people are sober and in the country drunkenness is unknown. Two-thirds of the population may be considered as vegetarians; they live on cabbage, beans, maize, and sweet potatoes, and they eat a great quantity of bread. Little fish exists in the surrounding sea, and of this still less comes within reach of the poorer classes. A greater quantity of Norwegian and American dried fish is consumed, but even that is a luxury for the majority. Putrid fish is sometimes eaten and there is one parish (São Gonsalves) which is known for this unclean habit; yet the number of lepers is less there than anywhere else. The peasants and the lower classes of the population eat meat only once a year—at Christmas; then they gorge upon pork. But if the quality of the food is good enough and without influence it is far otherwise as regards quantity, for hunger is permanently established on this island. Very early marriages, large families, a high density of population (170 per square kilometre), and the many parasitic diseases against which agriculture constantly has to struggle, render it more and more difficult as time goes on for the labourer to support himself; yet the population continues to increase, emigration is discouraged, and thus a state of almost universal destitution is maintained. The beautiful climate, which allows of an open-air life all the year round, alone relieves it. Under these conditions hygiene is, of course, neglected. Do not these conditions amply suffice to explain the persistence of the endemic and its prevalence among the peasants and the poor?

Heredity.—Dr. Goldschmidt pronounces himself against heredity and he thinks it more than probable that nothing but a predisposition is transmitted. He thinks that the disease is communicated by the close contact usual between parent and child and adds: "Association between mother and child is closer than between father and child, and that explains how it is that this false heredity is more often seen when the mother is a leper than when the father alone is attacked." [An important statement to which precise and detailed observations could alone give weight; but these are wanting.]

Association with lepers.—Lepers are not in the least avoided by healthy people and Dr. Goldschmidt cites several instances of the careless promiscuity in which healthy persons live with them, and he has often observed striking examples of it. He has seen the leprous husband lying in the same bed with his healthy wife and children, all being naked; he has seen a leper with deformed and ulcerated hands dispensing groceries without causing the least repugnance among his customers, and round the lazaret a crowd of beggars have established themselves to share the rations served out to the leprous inmates whose plates and spoons they use and with whom they live in intimacy. These examples abundantly prove the indifference with which the people regard leprosy; they do not believe it is contagious and, moreover, they attribute its occurrence to the use of a certain vegetable.

Etiology.—The conclusion at which Dr. Goldschmidt arrives, and which, he says, is based exclusively on the clinical and epidemiological observations just described, is that, "having exhausted all the etiological probabilities we can only admit direct transmission from one person to another through the bacillus leprae" as the means by which the disease is maintained—the inevitable consequence of continued close contact beween the sick and a half-starved, stunted people.

To summarise Dr. Goldschmidt's statements, the origin of the disease in Madeira remains quite hidden. It seems likely, although there is no direct evidence of this, that after the year 1419 more or fewer lepers were imported; but the island was inhabited at its discovery, and as to the aborigines nothing at all is known. Leprosy, therefore, may have been present before emigration began. No ground whatever is

[2] Thus in the text; possibly a typographical error for 2·4.

shown for the assertion that leprosy became endemic in Madeira in consequence of the importation of lepers. A lazaret which still exists and is still in use was established "before the end of the fifteenth century." Doubtless, therefore, cases of genuine lepra existed on the island about the date thus roughly indicated. At some time or other a law came into force under which poor lepers were forcibly interned in the lazaret while richer lepers were permitted to remain at home under restrictions as to dress which applied also to their relatives and servants. This law ceased to take effect about 1860. Many important details concerning the law itself and its administration are wanting, especially whether it was repealed or whether it gradually fell into disuse; whether the poor were in reality isolated or whether they did not rather live at the lazaret as in an almshouse; and whether lepers living at home were under any supervision at all. Nothing whatever is known of the course of the disease from the date at which the lazaret is believed to have been opened—or perhaps about the year 1500, or for 330 years—nor anything of great importance thereafter. Concerning lepers living at home there are neither numbers nor any sort of account at any date; nevertheless, they must have greater interest for the contagionist than the interned lepers who were at least gathered together in one place. In the year 1830 a journal first began to be kept of the admissions of poor lepers only to the lazaret, and this furnishes all that is known as to number of Madeiran lepers at any time. During the next 61 years 224 poor lepers were entered in this book. Probably even this limited register was irregularly kept, for the mean number of annual admissions can be stated only for the 22 years from 1840 to 1861. But at all events these official figures would have little value unless details concerning the administration of the law were fully known; however, only disuse or cessation of the coercive law about 1860 is mentioned. At most they can only be taken to establish the presence of lepers in Madeira from the year 1830. This is absolutely all the available information as to the origin and progress of lepra in Madeira. It amounts to little more than a statement that the disease has been present there since the year 1500 and probably before that date. Such legal measures as were taken to control actual lepers did not prevent the occurrence of fresh cases. Has the disease been maintained by communication with sick persons? The account suggests that this was never made impossible by effective isolation.

If the history of leprosy in Madeira regarded as a study in epidemiology remains for the present an unexplored field, it is otherwise with the conditions under which the disease has persisted during the last 26 years. The details of this period seem to be sufficiently full and explicit. The author gives them from his own knowledge and observation. From perusing them, however, the reader who began without any prepossession rises with wonder at the conclusion which is formally drawn, for he cannot help seeing that if lepra were indeed maintained by communication with the sick, if it were maintained by indirect communication, if natural resistance to leprosy in particular could be withdrawn by a lifetime led in *la misère*, or if diminished resistance were indeed the determining cause of the maintenance of leprosy on areas of its endemicity—then at all events Madeira should be ravaged by this disease. But what is the fact? Only 70 cases can be counted there at this day.

Sydney, New South Wales.

NOTES ON A SUCCESSFUL CASE OF CÆSAREAN SECTION.

BY J. P. WALKER, M.R.C.S. ENG., L.R.C.P. LOND.,
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A MARRIED woman, aged 23 years, a primipara at full term, began with labour pains at 10 P.M. on April 23rd, 1899, the waters breaking with the first pain. The patient was a woman of low stature, and since the age of 13 years had used an ordinary high-soled boot for the left foot, as she had a congenital dislocation of the left hip. She sent for me at 3.30 the next morning, and on examination I found the head presenting very high up, the os uteri admitting the tip of one finger. The pains came fairly strong and frequently, but did not seem to distend the orifice any further. The antero-posterior diameter of the brim was extremely small and would not admit the tips of two fingers—i.e., less than one and a quarter inches.

Thinking this to be a case in which crushing would be impossible, and symphysiotomy likewise futile, it seemed to me that nothing but a Cæsarean section would meet the case. Accordingly I returned home for the necessary instruments and dressings and sent messengers to Dr. J. Melvin and Mr. G. Ellis asking them to come to meet me in consultation about her. I must thank these two gentlemen for their prompt attendance and valuable help during the subsequent operation. They coincided in the opinion that such an operation was absolutely necessary. An enema having been given and the urine drawn, the patient was placed on an operation table (hurriedly improvised from a sideboard, the glass back of which had been removed) and chloroform was administered at 9.30 A.M. The pubes were shaved and the abdomen was well cleansed and washed with 1 in 40 carbolic lotion, which was also used for the immersion of all instruments and ligatures, lint moistened with boric acid lotion being used for swabbing purposes. An incision about seven inches in length was made from just below the umbilicus to about two inches from the pubes, in the median line, all bleeding being very carefully arrested before opening the peritoneum. This was then opened and an incision about five inches in length was made in the uterine peritoneum corresponding with the opening in the abdominal wall. This was then lifted up from the underlying uterine tissue for about an inch on each side with the back of a scalpel aided by the fingers. The uterus was then cut into by a similar longitudinal incision, hæmorrhage being fairly free. The back of the child's left shoulder presented, and an arm was promptly seized and dragged through, blocking the opening and stopping the bleeding. With some little difficulty the head and then the body of a fairly well-developed female child were drawn through, the umbilical cord being speedily tied and divided. Both hands were then used to compress the uterus to stop the bleeding which again began very freely. As it did not quickly stop I separated the placenta with my finger and peeled off very quickly the membranes from the interior of the womb which at once contracted and the hæmorrhage abruptly ceased. The incision in the womb then seemed to be about two inches in length. Plaited silk interrupted sutures were then taken through both muscular substance and serous membrane (with the exception of the lowest suture which embraced muscular substance only), and the muscular tissues were then brought rather tightly together, the serous membrane lying in a redundant fold on the top. This latter was easily brought together and sutured, serous surface to serous surface, sutures being placed at intervals of about a quarter of an inch. This raised peritoneum had proved very useful, as it provided a pouch to receive any overflow from the interior of the uterus, and no swabbing of the abdominal cavity was needed. It further allowed a fair extent, at least three-sixteenths of an inch, of serous surfaces to be brought into apposition. The parietal peritoneum was sutured in a similar manner; three sutures were used to approximate the abdominal muscles, and finally 16 sutures were used to bring together the edges of the abdominal opening. It was dressed with oiled silk, double cyanide gauze, and a fairly large compress of sublimate wood-wool, covered with a thick layer of absorbent cotton-wool, ordinary bandages, and finally cotton elastic bandaging was placed over all. It is probable that this latter proved of great service. In all my operations for hernia I have used it because it continually keeps the dressings in apposition, no matter what the patient's movements may be; similarly in Cæsarean section the continuous pressure of the elastic over the dressings compress may help to counteract the deleterious effect on the uterine sutures and wound of the rhythmic contractions and relaxations of the uterus, and the slight rise and fall of the abdominal respiratory movements. After giving a hypodermic injection of morphine the patient, who had borne the operation well, was carefully carried upstairs to bed.

The after progress of the case was very fair. The catheter was used three times a day for the first week, after which the patient was allowed to pass urine herself. She was kept fairly under the influence of opium. She vomited once on the second day and brought up some bilious matter; her temperature did not rise above 100·4°F. She

was fed per rectum for a week, only a little water being allowed by the mouth. The wound was dressed for the first time on April 29th, five days after the operation. Three days later seven of the stitches were removed and the remainder on May 4th. On May 11th the wound was quite healed. The lochia were normal throughout; no vaginal douches were employed. The patient was not allowed to suckle her child. She was free from pain practically throughout. The bowels acted normally on the sixth day. On June 5th she was allowed out of doors. There was a little trouble subsequently with three sutures coming away; presumably they were those which had been used to approximate the abdominal muscles, judging from the places whence they emerged. I saw the patient recently (Sept. 13th). She was in good health and was menstruating regularly. The child was also doing well.

This case is interesting from the fact of its having occurred under difficult home circumstances. The patient lived in a two-roomed cottage, the capacity of the lower room when destitute of furniture being only 1030 cubic feet, and that of the bedroom being 1616 cubic feet. Her only nurse was her mother. There was considerable difficulty in getting one of the breasts to cease secreting, several belladonna plasters having to be applied before their purpose was fulfilled. Though her hip trouble is on the left side there was undoubtedly more room on the left side of the pelvis where the head was presenting than on the other. This is, I believe, contrary to the usual condition of affairs. There was nothing in her external appearance to lead one to suppose that her true conjugate would be so small.

Rochdale.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF DISTOMA HETEROPHYES IN A LIVING PATIENT.

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IN modern text-books such as Eichhorst's Medicine, Davidson's Hygiene and Diseases of Warm Climates, and some others it is mentioned that Dr. Bilharz found at two post-mortem examinations at Kasr-el-Aini Hospital distoma heterophyes in the fæces of patients. That must have been nearly half a century ago and since then little has been reported about the worm until 1894, when Dr. Looss directed attention to it in Egypt.[1]

On March 4th, 1894, a girl was admitted to my wards for cystitis and dysenteric diarrhœa. She lived at the village of Mit Azoun near the town of Mansurah, and she and her mother stated that she had been uncomfortable for six years in consequence of irritation of the bladder and that she was accustomed to pass a few drops of blood after urination. Moreover, for four years she had had rectal tenesmus and had passed both blood and mucus with the motions. The diagnosis of bilharziosis of the bladder and rectum was easily made, but it was not until March 19th that Unsi Effendi, one of the assistants in the Medical School, while counting under the microscope bilharzia eggs in the fæces, discovered the distoma heterophyes. I then examined the fæces daily with the following result. On March 20th there were five worms and many eggs; then no more flukes at any time, but there were two or three distoma heterophyes eggs every day until April 11th, when only one egg could be found. Daily search showed one egg on April 13th, 17th, and 19th, and after that there were no more. The disappearance of the fluke was probably due to a dose of 30 grains of thymol which I gave to try to clear the lower intestine of bilharzia eggs. But this was of little avail, for on June 9th, when the patient was discharged from the hospital and the urine averaged 1015 in density, 21 ounces in quantity, showing a trace of albumin, and five bilharzia eggs on several slides, there were still bilharzia eggs in the fæces. The age of this patient was guessed at about 15 years, though her face looked older. Her breast and pubes showed no signs of puberty and the catamenia had not yet appeared, but she stated that her contemporaries already had babies of their own. (Peasant girls are often married soon after the catamenia first arrive.) Her weight increased steadily from 67 lb. on March 6th to 78 lb. on May 29th. Her temperature was always 98·4° F. in the mornings and usually rose to 99·3° at sunset. She had no symptoms at any time which could have been attributed to this most minute fluke, and I only record the fact of its discovery because hitherto it has been thought to be of purely post-mortem interest. During the last two years we have mostly failed to find this fluke, but I daresay it would often be found if constantly searched for.

Cairo.

[1] The best anatomical description of the fluke and its eggs will be found in a pamphlet by Dr. Looss, "Ueber den Bau von Distomum Heterophyes." Von Sieb, Kassel, 1894.

RIGHT-SIDED PARALYSIS OF GRADUAL ONSET OCCURRING DURING PREGNANCY.

BY ROBERT CRAIK, M.D. GLASG.

A WOMAN, 36 years of age, who was eight months pregnant with her first child, complained on March 10th of numbness and loss of power in the right hand. On this account she was unable to attend to her housework and had to engage help. On several occasions lately she had let articles fall, so that she did not feel it safe to lift anything with her right hand. She had to take tea with her left hand and was quite unable to lift anything as heavy as a saucepan. There was a constant numbness and a burning feeling in the hand and fingers which gave her much discomfort. Partly on this account she could not sew or knit or button her dress. These symptoms had come on gradually during the last two months and she had been conscious of distinct loss of power in the hand for at least a month. She thought that the numbness came on after the loss of power. Quite lately she had experienced a certain difficulty in speaking, but it was not clear in what way the speech was affected. On examination it was found that the grasp of the right hand was feeble and the forearm was soft and flabby compared with the left. There was no muscular hyperæsthesia evident on pressure. Sensation as tested with a pin seemed to be considerably diminished. With the eyes closed she often hesitated to say which finger was touched with a pencil, but generally answered correctly—always correctly for the thumb and little finger. There were slight headache and habitual constipation. The urine gave no indication of albumin when tested with heat and nitric acid. On March 20th the right hand was in much the same condition as before. The difficulty in speaking was greater. The right side of the face looked flat. She could not pucker the lips to whistle. With a finger in the mouth I could feel that the right cheek was quite flabby. She complained of the dribbling of saliva from the mouth, especially at night. When the tongue was protruded there was slight deviation to the left. She had no trouble during mastication or in the act of swallowing. On inquiry it was found that there was troublesome cramp in the right leg at night, chiefly in the calf. I was of opinion that the knee-jerk was slightly increased on the right side. On April 9th her confinement took place. The labour was tedious owing to the occipito-posterior position of the child's head, and the forceps had to be used. Possibly the position explains the cramps in the leg. The hand was still feeble and numb and the face was flabby on the right side. On May 2nd the right hand was stronger than before, but still remained weaker than the left. The numbness had almost quite gone. The face looked all right. The knee-jerk seemed more marked on the right side. The cramps never returned after the confinement. There was complete recovery within three months after the confinement. There were no symptoms of syphilis. Lead poisoning and alcohol could be excluded. The heart was quite normal and the kidneys were healthy. There was no history of recent illness. The case seemed to belong to the class of palsies directly related to the state of pregnancy. The treatment consisted in rest, milk diet, and purgatives occasionally.

On Sept. 11th the mother and child (the latter now aged five months) were both of them quite well.

Conisbro', Yorks.

A MODIFICATION OF THE ARONSON AND PHILLIPS STAINING METHOD AND ITS APPLICATION IN THE CASE OF MALARIAL BLOOD.

BY EDWARD G. HORDER, F.R.C.S. EDIN.

I WAS much interested in Dr. Gerrard's clinical note in THE LANCET of June 3rd, 1899, p. 1490, giving a modification of the Aronson and Phillips Staining Method and its Application in the Case of Malarial Blood. I quite agree with Dr. Gerrard that the triple stain is one of the best we have for malarial blood, but the non-success of this stain in the hands of many men working on the blood has deterred others from using it to demonstrate the malarial parasite. My colleague, Mr. Hill, and I have used no other stain since we learnt how to heat the specimens. I wish to make a few suggestions and try to show how there is still an easier, surer, and quicker method than Dr. Gerrard's modification of the Aronson and Phillips staining method and will take up the points in the following order.

1. *The preparation of the cover.*—Dr. Gerrard and others suggest receiving the blood on a cover-glass and placing this face down on a second, separating them carefully when the blood is fully spread. This is an excellent plan, but requires a lot of time and often it is difficult to obtain an even spread. A quicker way, and I think more satisfactory, is to combine the use of cover-glasses with Manson's smearing. Having ready a glass cover in a pair of Ehrlich's forceps (these are better than Cornet's for holding and picking up covers) and a small piece of gutta-percha (half an inch square), held in a second pair, we proceed to prick the ear, and as the blood exudes the drop is touched by the edge of the gutta-percha, laid flat and drawn across the cover-glass, *commencing from the edge held by, and parallel to, the Ehrlich forceps.* The gutta-percha is held by forceps for the reason that during the greater part of the year in the tropics it is almost impossible to prevent the gutta-percha sticking when held by the fingers and with forceps it is much easier to manipulate. The smearing is commenced at the side held by the forceps for the reason that if begun from any other point the cover-glass is apt to swing round and spoil the specimen. One cover smeared another and another are picked up, and thus 10 or 20 spreads are prepared in a few moments. There is no touching of cover-glass with heated fingers, and the blood being spread by gutta-percha is more even in its results and therefore requiring the same number of exposures to the flame as other specimens spread in the same way.

2. *The heating.*—The quickest, and I believe the most certain, method of heating is by means of a spirit-lamp. After testing a half-dozen specimens prepared as above it is quickly learnt what exposure is required. If a lamp holding five ounces of spirit with a wick half an inch long be used, from 16 to 18 exposures to the flame will be required—that is, it will be necessary to pass the specimen quickly through the flame about 18 times to obtain a satisfactory staining. With the triple stain all depends upon the heating.

3. *The staining.*—After trying various mixtures—for no two books give the same proportions for the preparing of the triple stain—I find nothing better than the Ehrlich-Biondi powder made by Grubler and a solution[1] of this I have in constant use. It is quickly prepared and produces splendid results, and I agree with Dr. Gerrard when he says that for the malarial blood we have nothing better than the triple stain. Two minutes' staining will be found long enough for all specimens taken as above described. The great advantages of the powder are that it is easily packed, that but one bottle is required, a small quantity of the solution is quickly prepared, and is ready for use at once—all strong arguments in its favour for men who are often on the march and wish to stain a preparation immediately.

Pakhoi.

[1] Cabot gives the following formula: Ehrlich-Biondi powder, 15 grains; absolute alcohol, one cubic centimetre; distilled water, six cubic centimetres.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.

A CASE OF STRANGULATED INGUINAL HERNIA IN AN INFANT AGED 10½ MONTHS; OPERATION; RECOVERY.

(Under the care of Mr. D'ARCY POWER.)

STRANGULATION of a hernia in a young child is a rare occurrence, for the tissues are soft and are not likely to compress the bowel sufficiently to interfere with the circulation; yet from time to time numerous cases of strangulated hernia in children have been recorded, and it has been met with even during the first few days of life. In many cases partial inversion has led to a return of the bowel, though it has been necessary sometimes to keep the patient in this position for several hours. This treatment was, we believe, first recommended by Pott. It should, of course, only be employed in cases where no very urgent symptoms are present. For the notes of the case we are indebted to Mr. Edward J. Parry, house surgeon.

At 10 30 on the evening of July 26th a well-nourished male child, aged 10½ months, was taken by his mother to the Victoria Hospital with the history of having suddenly strained himself while coughing violently at 3 o'clock on the same afternoon. The child previously had been perfectly healthy except that he had had a right inguinal hernia for about six months for which he had worn a truss. On examination the local signs were as follows: a tumour of about the size of a hen's egg, extremely tense, was found in the scrotum and inguinal region on the right side, possessing the usual signs of a strangulated hernia with the exception that it was almost perfectly translucent. With regard to the general symptoms the child did not appear to be in much pain; he had not vomited at all and had taken his food as usual; the bowels had been open twice since the strangulation occurred. The pulse and temperature were normal. The pelvis and abdomen were elevated and taxis was tried gently for about one minute, but without any favourable result. Mr. D'Arcy Power operated an hour later, eight and a half hours from the commencement of strangulation. Some clear fluid was found in the sac and the gut was congested; the stricture which was fairly tight was situated at the neck of the sac. The bowel was returned and an operation for radical cure was performed. There was a good deal of swelling during the next two or three days, but this disappeared within a week. The infant made a rapid and uninterrupted recovery and was discharged on August 16th.

ROTHERHAM HOSPITAL.

A CASE OF VOLVULUS OF THE SMALL INTESTINE; LAPAROTOMY; RECOVERY.

(Under the care of Mr. REID.)

IN the following case the slowness with which the symptoms appeared points to the volvulus of the bowel having been by no means acute. It is probable that at first the twisting of the intestine was only slight and that about the time of admission to the hospital the bending of the gut was increased so that complete obstruction resulted. The value of early laparotomy in cases of volvulus is well shown by Braun.[1] For the notes of the case we are indebted to Dr. J. S. Martin, house surgeon.

A married woman, aged 26 years, was admitted into Rotherham Hospital on June 30th, 1899. She had had two children, the youngest of whom was three years old. Ten

[1] Therapeutic Gazette, April 15th, 1892.

months before admission she had a child which was born dead. Menstruation had been regular until seven weeks previously to the date of admission when she went six weeks without seeing anything. Her period then came on, lasting a week. On June 21st she got up at 9.30 A.M. to light the fire when she suddenly felt pain in her abdomen. The pain was so severe that she fainted and half an hour afterwards her sister found her lying unconscious on the floor. In another half hour she came round and feeling great pain in the abdomen she went to bed. The pain was increased by pressure and it continued to be severe for the next three days, but she did not see a medical man. On the 26th she felt better and the pain left her entirely. She felt so well that she went about her ordinary work and the next evening she went to see a circus performance. On the 28th she was out in heavy rain and on the 29th, at 8 30 P.M., the pain returned as severely as before. On the 30th she sent to the hospital. The assistant house surgeon saw her and advised her admission. She was admitted at 7 P.M. Up to the time of her admission there had been no vomiting. Two years ago she had a similar attack which, however, was less severe; it lasted five days and was unaccompanied by sickness. On admission the tongue was clean and dry. The patient lay on her back with the knees drawn up. The cardiac impulse was not displaced and the heart sounds were soft. No murmurs were present. The pulse was 98, soft and intermittent, and the temperature was 100° F. The abdomen was distended and tender, the distension not being general but localised round the umbilicus, giving this region a heaped-up appearance. The tenderness was diffused all over the abdomen, though somewhat less marked in the left inguinal region. There was no special tenderness over McBurney's point. On vaginal examination there was fulness in the posterior fornix and the uterus felt bound down to the pelvic floor. The bowels were constipated and she had not had a motion since the 26th. On the following day (July 1st) she vomited seven times in the course of the morning. The vomit was of a light straw colour with a sour smell. The abdominal pain was less severe than the previous day, but it was till present. A simple enema was administered with an unsatisfactory result. Two small masses of fæces came away, with a little dark fluid. At 4 P.M. she vomited again, this time bringing up nothing but watery mucus stained with bile. At 9 P.M. a consultation was held by the members of the staff. There was some difference of opinion as to whether the case was one of appendicitis or of intestinal obstruction. The balance of opinion fell towards the former and it was decided to wait. During the night the patient vomited twice and her condition next morning was no better, so after another consultation an exploratory laparotomy was decided on and at 10.30 A.M. on July 2nd Mr. Reid opened the abdomen. The incision was made over the appendix, starting from McBurney's point, and continued downwards for about three inches. The cæcum and appendix were perfectly healthy, the latter being about three inches in length and extending towards the brim of the pelvis. The small intestine was then examined. Beginning at the ileo-cæcal valve the operator passed the bowel through his fingers, returning the examined part to the abdominal cavity. About two feet above the valve the bowel showed signs of congestion and soft yellowish flakes of lymph were found on the surface, but there was no loss of lustre. On examining the bowel in the direction of the greatest congestion a volvulus was found about a foot higher up. A loop of the bowel had become twisted upon itself, the constriction being caused by the manner in which the upper end fell over the lower. It is of interest to note that at this part the flakes of lymph were scarcer than they were lower down and there were no adhesions. The bowel was readily untwisted and was spread out on a flat, warm sponge. No predisposing cause for the volvulus could be discovered and the gut was returned to the abdomen. The wound was closed with a single layer of silkworm-gut sutures and a dressing was applied. The patient made an uninterrupted recovery. On July 9th she began to take solid food; on the 12th the stitches were removed and on August 14th she left the hospital feeling well and wearing an abdominal belt as a support.

Remarks by Dr. MARTIN.—Apart from the rarity of the condition, the severity of the onset and the interval which occurred during the attack are features of interest. It would seem that the bowel had untwisted itself and had twisted a second time. It is a matter for surprise that the symptoms were not more acute. During the nine days prior to admission the patient had no vomiting. Lastly, in Treves's System of Surgery it is questioned whether a volvulus of the small intestine can occur without some adhesion causing kinking of the bowel; but in the above case no such adhesion was found. I am indebted to Mr. Reid for permission to publish these notes.

GOVERNMENT CIVIL HOSPITAL, HONG-KONG.

A CASE OF EXALGINE POISONING; RECOVERY AFTER A VERY LARGE DOSE.

(Under the care of Mr. J. BELL.)

EXALGINE was introduced as a substitute for antipyrin and its constitution is indicated by its structural name, "methylacetanilide." In its physiological effects it closely resembles antipyrin, but its sedative action on the nervous system is decidedly greater. As the ordinary dose is from four to six grains the quantity taken in the case described by Mr. Bell was truly enormous. Weber[1] recorded a case where 240 grains of exalgine were taken; the patient recovered, but there was temporary suppression of urine and the first urine passed contained blood. A case of poisoning from only five grains of exalgine was reported by Mr. F. G. Crookshank;[2] complete unconsciousness lasted for three hours, but recovery ultimately occurred.

A Chinese male adult was taken to the Government Civil Hospital, Hong-Kong, on July 31st at 11 A.M. by his friends who stated that he had taken some medicine out of a tin purchased in the town and this tin they produced. It was the usual one-ounce tin stamped with the words "Exalgine" and "Merck." The patient was quite unconscious, intensely livid, with pin-point pupils and a full bounding pulse. His temperature was 100·8° F. He had vomited once. He was given 30 grains of salicylic acid by the nasal tube and one-fiftieth of a grain of atropia hypodermically and was put to bed. He remained in much the same condition, so two hours later he was given one-hundredth of a grain of atropia with small quantities of milk and strong coffee. The urine was examined and contained one-fifteenth albumin. During the night he again had one-hundredth of a grain of atropia. Next morning he was out of danger though his colour and pupils were not quite normal, but the urine was now free from albumin. He was somewhat weak for several days and his temperature varied between normal and 100·8°, though this might have been due to the primary syphilis from which he was found to be suffering. He apparently purchased and took the medicine to open his bowels, though it was found impossible to ascertain why and where he bought it.

Remarks by Mr. BELL.—This case is deemed worthy of recording, as poisoning by this drug is uncommon. The similarity between its effects and those due to opium are noteworthy, and fortunately the similarity extends to the treatment, if it is considered that treatment was of avail. There does not seem to be any note in the text-books as to whether albumin is present in the urine in opium poisoning, and though poisoning by this latter drug is common here no note has so far been made as to its presence, though this omission will in future be remedied. Mr. Browne (the Government analyst) kindly confirmed the fact of the drug in question being exalgine and informed me that the patient must have taken 150 grains, judging from the amount missing from the box and from the patient's statement that he only took one dose. The hints as to treatment were found in "Martindale's Extra Pharmacopœia."

[1] Revue Générale de Clinique et Thérapeutique, Nov. 3rd, 1894.
[2] THE LANCET, May 25th, 1895, p. 1307.

FEES FOR LUNACY CERTIFICATES.—At the meeting of the Newport (Mon.) Board of Guardians held on Sept. 16th it was reported that three members, including the chairman, had been surcharged by the Local Government Board auditor in connexion with the payment of a guinea to the medical officer for the examination of a pauper lunatic. The auditor stated that all that was required was an expression of opinion whether the parish patient was fit to be removed from the workhouse, and that that came within the ordinary duties of the medical officer.

Reviews and Notices of Books.

The Murmurs of Mitral Disease. By EDWARD MANSFIELD BROCKBANK, M.D. Vict., M.R.C.P. Lond., late Resident Medical Officer, Manchester Royal Infirmary, and Birmingham General Hospital. Edinburgh and London: Young J. Pentland. 1899. Pp. 46.

THIS small work is a study of the widely debated question of the crescendo murmur of mitral stenosis around which so much controversy has taken place in recent years. The most important portion of the book has already appeared in the pages of the *Edinburgh Medical Journal* for March and April of this year. Dr. Brockbank approaches the subject in a style entirely free from dogmatic and assertive statements. His experiments are simple but sound, and he certainly makes out a good case in favour of his theory that "the crescendo murmur of mitral stenosis is produced by blood regurgitating through the stiff, rigid orifice of the narrowed valve, whilst this orifice, which resists closure, is being rapidly diminished in area and finally obliterated by the action of a strong force, which on its part increases progressively in strength with the duration of the bruit." The main point in this theory is, as the author points out, that the ascending pitch of the murmur is imparted to it by the blood rushing through an orifice which is being gradually diminished in area of lumen, and the experiments are described by which he endeavours to support this contention. As already stated, these are simple in character and we can detect no flaw in them.

Dr. Brockbank proceeds to consider the application of the early systolic rhythm theory to the explanation of the various clinical appearances of the crescendo murmur. He shows (1) that the crescendo murmur is most audible at the apex beat and is rarely conducted to the left margin of the sternum or to the back of the chest; (2) that the systolic murmur of mitral stenosis is loudest at the apex beat and only in the minority of cases is conducted to the back or to the sternum; and (3) the mitral diastolic murmur is, in the majority of cases, audible near the left margin of the sternum as well as at the apex beat. These facts, the author submits, show that the area of audibility is more nearly allied to that of the mitral systolic than to that of the mitral diastolic murmur. Although this is contrary to the opinion of the majority of writers we believe that these arguments add considerably to those advanced by other observers in favour of the early systolic origin of the crescendo murmur of mitral stenosis.

Another interesting point is discussed in Chapter III.: Can crescendo murmurs develop without auriculo-ventricular stenosis? Under the theory above stated the essential conditions for the development of a crescendo murmur are that the valve at which it is produced must be only temporarily incompetent, that the leak in it must become obliterated during the production of the murmur, and that the force which develops the murmur must be vigorous. Given these three conditions it matters not what state the valve orifice may be in. Like the true crescendo murmurs, these new bruits are always regurgitant, and the author describes at length his reasons for believing that there may be a temporary leak from other causes than stenosis when there is incompetence of the aortic, mitral, or tricuspid valves. The most common causes of this temporary incompetency are dilatation of the ventricle from primary muscular failure or as a consequence of aortic regurgitation or adherent pericardium, and affections of the papillary muscles.

Dr. Brockbank has discussed a difficult subject in a very able manner. We cannot assert that he has carried entire conviction to our minds that his theory is correct; but certainly his essay is one of the most lucid dissertations which we have met with as attempting to show that the view hitherto held as to the cause of the characteristic murmur of mitral stenosis is after all not the true one.

The Causes of Consumption, with Special Reference to its Prevalence in the Isle of Man. By CHARLES A. DAVIES, M.D.Vict. Isle of Man: Brown and Sons. 1899. Pp. 66. Price 2*s.* 6*d.*

THE first part of this *brochure* deals with the causes of consumption as far as our present knowledge extends. Dr. Davies has made a good summary of the views held at the present time and we agree with him in his conclusions with the exception of his remarks on the influence of previous diseases. He lays especial stress on anæmia and typhoid fever as forerunners of pulmonary tuberculosis. Although any cause which tends to lower the general health may be said to be a predisposing cause to bacillary infection, the two conditions just mentioned do not bear nearly such a frequent relationship to pulmonary tuberculosis as do pleurisy and pneumonia. Whereas the two former have whole paragraphs devoted to them the two latter are merely mentioned.

It is, however, to the second part of the work that most interest attaches—namely, "Consumption in the Isle of Man"—and here Dr. Davies may be congratulated on having given us a good deal of useful information. He has worked his subject up thoroughly and has evidently given to it much thoughtful attention. After a few remarks on the history, climate, soil, &c., of the Isle of Man the author gives figures showing the prevalence of pulmonary tuberculosis in the island. Here we would remark that Dr. Davies would have done better to employ the more modern term, "pulmonary tuberculosis," throughout his essay, rather than the older and less definite word "consumption"; however, that is a minor point. From these statistics it is very evident that the amount of the disease in the Isle of Man is terribly in excess of that on the mainland, and although a marked improvement can be noticed in the 1883-97 period as compared with the 1880-82 period there still remains much to be done. The town of Douglas has made great steps in advance. The total number of deaths from pulmonary tuberculosis in the 1883 calculation was 261, while in the 1898 calculation it was 213, in spite of the fact that the population had meanwhile increased by some 4000 people. Dr. Davies quite justly points out that in discussing the causes which tend to produce an exceptional prevalence of any given disease in a particular locality we do not expect so much to find any new factors, but rather to find a single factor that acts in an excessive degree, or a combination of several factors that bring about the same result. At the same time, though we do not discover any new cause, we may possibly give a new importance to a cause that has previously been considered of minor influence. He further argues that the various causes of any given disease fall naturally into two broad divisions—namely, those that affect the surroundings of the individual, such as climate, soil, occupation, &c., and those that affect his personal power of resisting disease, such as the influence of race and family, and the various vicissitudes and changes that go to make up the history of his people. This is, of course, apart from the existence of the tubercle bacillus; the author is considering the broad question of "resistance."

After discussing the climate and soil of the Isle of Man, the occupation and food of the inhabitants, &c., Dr. Davies fails to find a sufficient cause or combination of causes to account for the prevalence of the disease in the island; on the contrary, the general conditions prevailing are of such a nature as to tend to produce a low rate of mortality from pulmonary tuberculosis. The author, therefore, suggests that the inbreeding of the inhabitants may be the cause. To all intents and purposes there is a little nation some 10,000 or 15,000 strong, living for 600

years an isolated and detached existence. This in itself would not have been so bad had there been a free and general mixing together amongst them. This was not the case, however. The central mass of mountains formed a natural barrier between the north and south of the island. Further, the inhabitants in these two regions were descended from different races. By difficulties of communication the above were again divided so that the "nation" was broken up into four portions, and these subdivisions were again grouped into various parishes, and great resentment was felt against any man who selected a wife from any but his own parish. This necessitated a vast amount of inbreeding. Dr. Davies enlarges on these points in a most able manner and he discusses fully the alleged results of consanguineous marriages. We congratulate him on having produced an interesting dissertation in a small space and are not surprised to learn that the thesis secured for him his Doctorate of Medicine (Victoria University) and was highly commended.

LIBRARY TABLE.

An Introduction to Zoology. By B. LINDSAY, C.S. of Girton College, Cambridge. Second edition. London: Swan Sonnenschein and Co., Limited. New York: The McMillan Co. 1899. Pp. 356. Price 6*s.*—The lapse of only four years since the first publication of this work shows that in predicting its popularity among students we formed a fairly correct opinion of its value. The present edition, except, of course, for the correction of a few errors, remains unaltered. The student reading by himself and with plenty of time at his disposal should find this general introduction to zoological science invaluable, though we think the average medical student would not have the leisure to study the subject with the requisite accuracy. The preface tells us that "the chief distinctive feature of this volume is its attempt to present the system of classification by grades in a form suited to the necessities of elementary and popular teaching." The work is divided into three parts, dealing with the General Principles of Zoology, Systematic Zoology, and Advice to Students respectively. The subject matter is treated in a simple but scientific style and is accompanied by useful illustrations.

Modern Cremation: Its History and Practice. By Sir H. THOMPSON, Bart., F.R.C.S. Eng. Third edition. London: Smith, Elder, and Co. 1899. Pp. 187. Price 2*s.*—It is now eight years since the publication of the second edition of this useful and well-written book; as may be imagined, such a period is a comparatively long time in the history of a modern practice such as is cremation, and consequently the need has arisen to revise and enlarge the previous edition. In its arrangement the book is completely changed. There are now six chapters and an appendix; the first three chapters are devoted to the history of the Cremation Society of England from its formation in 1874 up to the present date. Chapter III. also relates the praiseworthy attempt of the society to place the system of death-registration on a footing which would not permit slippings of justice. Chapter IV. deals with the value of cremation in cases of death by infectious disease. Chapters V. and VI. present the "argument for cremation" as put forth in 1874 and 1899 respectively. The appendix contains detailed information with regard to the crematorium at Woking and the directions for the performance of cremation. We must congratulate the author on the admirable and lucid manner in which he has written this epitome.

A Practical Introduction to the Study of Botany. By J. BRETLAND FARMER, M.A., Professor of Botany in the Royal College of Science, London. London: Longmans, Green, and Co. 1899. Pp. 274. Price 2*s.* 6*d.*—The preface tells us that the aim of this book is to help those who desire to gain a practical knowledge of flowering plants; this end will be the more readily obtained by the fact that the author has very thoughtfully and sensibly chosen material which is accessible to every student. The physiological study of plants is encouraged by simple experiments which will appeal to the student and, we hope, will have the effect of developing a general and more thorough study of this branch of botanical science. The volume is divided into four parts, dealing respectively with the General Morphology, Histology, Physiology, and Examples of Natural Orders of Flowering Plants. An appendix on the necessary apparatus, examination questions, and an index, conclude the book. The arrangement of the work is good, its experimental directions are easy to follow, and the style is simple.

JOURNALS.

The Quarterly Journal of Microscopical Science. Edited by E. RAY LANKESTER, F.R.S., with the coöperation of ADAM SEDGWICK, F.R.S., and W. F. R. WELDON, F.R.S. London: J. & A. Churchill. Vol. XLII., Part 4. September, 1899. Price 10*s.*—This number of the *Quarterly Journal of Microscopical Science* contains a very carefully written and detailed account of the Structure and Metamorphosis of the Larva of Spongilla Lacustris by Richard Evans, B.A., of Jesus College, Oxford. This memoir was awarded the Rolleston Memorial Prize of the Oxford University for the year 1898. The author commences with a short account of the descriptions given by previous observers and then describes in detail the results of his own researches which have extended over a period of one and a half years. The article is illustrated by many drawings, some representing the effects of double staining. The second article is by Edwin S. Goodrich, B.A., Aldrichian Demonstrator of Comparative Anatomy, Oxford, on the Communication between the Cœlom and the Vascular System in the Leech (Hirudo medicinalis). The author believes that such a communication can be demonstrated in various regions of the body and that it takes place through the capillary systems. The paper is illustrated by numerous drawings. The third article is by Professor W. Blaxland Benham of the University of Otago, New Zealand, who has discovered an Entero-pneust new to science and interesting as being the first specimen of the Hemichorda recorded from New Zealand. The last article is by Professor E. W. MacBride of McGill University, Montreal, and is on the Movements of Copepoda, which he describes as being in part effected, as generally stated, by means of the second antenna, but in part by the simultaneous action of the thoracic feet, the former being the agents of the slow movements, the latter of the quick, darting movements.

Revue de Gynécologie et de Chirurgie Abdominale. No. 4, July–August, 1899. Paris: Masson et Cie.—This number contains a variety of interesting articles. 1. Hysterectomy in Cases of Puerperal Infection, by M. Th. Tuffier and M. R. Bonamy. 2. A Study in the Etiology and Pathological Anatomy of Solid Tumours of the Ovary, by M. L. Dartigues. 3. Seismotherapy, or the Utilisation of Vibratory Movements in Gynæcology, by M. F. Jayle and M. De Lacroix de Lavalette. 4. The Surgical Treatment of Intraperitoneal Extensions of Abscesses of the Liver, by M. J. Fontan. 5. Temporary Elastic Ligature of the Abdominal Aorta as a Means of Provisional Hæmostasis in the Course of Certain Operations, by M. J.-L. Faure. 6. Electrical Hæmostasis, by M. C. Jacobs. 7. An Historical Note concerning Trendelenberg's Position, by M. P. Desfosses. An analysis of current literature in gynæcology and abdominal surgery and obituary notices of Mr. Lawson Tait and Professor James Henry Etheridge conclude the number.

The Journal of Physiology. Edited by Sir MICHAEL FOSTER, K.C.B., F.R.S., and J. N. LANGLEY, F.R.S. Vol. XXV., No. 1. September, 1899. London: C. J. Clay and Sons. Price 6*s.*—The contents of the current number of this journal are: 1. Contributions to the Physiological Effects

of Peptone when Injected into the Circulation, by W. H. Thompson, M.D. R.U.I. The experiments show that in the splenic district, as shown by a plethysmograph, the dilatation of the vessels and the consequent fall of blood-pressure are moderate after the injection of "peptones" or albumoses. In the liver district the vessels dilate to a great extent and there is a corresponding fall of blood-pressure. In the area of the limbs the influence is slight. The blood-vessels of different regions therefore differ in their reaction to the injection of peptones. 2. On the Innervation of the Longitudinal Coat of the Small Intestine, by J. L. Bunch, M.D. Lond. The author believes that the splanchnics contain both motor and inhibitory fibres for both the circular and longitudinal coats of the intestine. Stimulation of the vagus was followed by a preliminary inhibition followed by well-marked augmentation of the contraction. 3. The Effect of Compression on One Lung on Respiratory Gas Exchange, by Vaughan Harley, M.D. Edin. It was found in these experiments that when one pleural space is filled up by the injection of warm water so that compression upon the lung is exerted, in the majority of instances there is a marked increase in the rate of breathing and more air is breathed per minute by the active lung and more oxygen absorbed and more carbonic acid eliminated than was previously breathed by the two lungs together. 4. On Periodic Variations in the Contractions of the Mammalian Heart, by Arthur R. Cushny, with some figures in the text. 5. Auto-intoxication as the Cause of Pancreatic Diabetes, by Ivor Ll. Tuckett. 6. The Physiological Action of the Alkaloids derived from Anhalonium Lewinii, by Walter E. Dixon, M.D. Lond., Salters' Company Research Fellow at St. Thomas's Hospital. The anhalonium is a small cactus known in trade as mescal. The alkaloid induces mental disturbance, hallucinations, and curious increase of reflex actions. 7. The Physiology of Extracts of the Pituitary Body, by Professor E. A. Schäfer, F.R.S., and Swale Vincent, M.B. Lond., with six figures in the text. 8. Further Proofs of the Origin of Uric Acid from Nuclein Compounds and Derivatives, by William J. Smith Jerome, M.B. Lond.

New Inventions.

A NEW TRUSS.[1]

HAVING had a case of oblique inguinal scrotal hernia in a remote part of India I thought that a temporary arrangement might be made by the encasement of the hernia until the usual truss arrived. The following method was successful in controlling the hernia.

A piece of elastic material, somewhat of a triangular shape is cut and from the middle of the base a longitudinal fissure is made, which ends in a circular aperture. (*Vide* illustration.) This circular aperture can be greatly enlarged when the longitudinal fissure is open. The longitudinal fissure is closed with straps and buckles. On each side of the triangle straps are attached which pass around the waist. In the large truss there are three straps, but these may be eventually reduced to one in trusses for direct hernia. The apex of the triangle ends in a band which passes underneath the perineum and is attached to the braces behind. This band is not elastic but is lined with some smooth material. Greater direct deep pressure is obtained by this truss than the ordinary one, as it will support a rupture where the ordinary truss fails. In difficult cases a pad with a slit in it or of a horse-shoe shape is used. The pad is fixed to the truss. These pads are not necessary in many cases and were not used by me until lately. The size of the truss will vary with the case, whether direct or oblique. The mode of adjustment is simply encasing the hernia and is effected as follows: first the testicles and penis are passed through the circular aperture and the longitudinal fissure is then closed with its straps and buckles, and the other straps are adjusted. This truss has the following advantages over the ordinary one in use. All pressure on the back and springs sticking into the abdomen are dispensed with—the discomforts of these springs are best known to the patients themselves. With the aid of these pads I have supported a hernia successfully in a case where all the leading London truss-makers failed.

Another patient whom I showed to the staffs of St. Thomas's, Guy's, Middlesex, Westminster, and Charing-cross hospitals, had suffered from oblique inguinal scrotal hernia of seven years' duration with a large ring and he had never been fitted properly with a truss before. This man was carefully examined and put through forms of exercise by the surgeons of the above-mentioned hospitals and I am sure these gentlemen will testify that during their examination the rupture was well reduced and not smothered in the

Internal and external view of truss.

abdominal muscles, and that there was no constriction of the dorsal vessels. A great complaint against the majority of the trusses in use is that when the wearer kneels down or stoops the truss slips and the rupture comes down. This is a very serious difficulty to the working-man. With my truss on a man can kneel, jump, ride, and even perform gymnastic exercises, as one of my patients did, owing to the hernia being so strongly encased.

For anyone whose occupation renders riding, kneeling, or stooping necessary this truss will be found most acceptable. With the ordinary truss on walking is greatly impeded, and the first thing a person does with this truss on is to take far more walking exercise than he usually does. I have never known a patient to test it on a bicycle, but think it would prove advantageous over the ordinary truss. In children I applied it in one case and it gave great satisfaction and was worn day and night by the patient. The truss was of a very simple kind. In femoral hernia I have had no experience, but at the request of one of the surgeons of St. Thomas's Hospital I supplied a truss to the hospital very recently, but with what degree of success I have not yet heard. This truss had a special pad over the femoral ring and was much smaller than the truss used for the inguinal hernias. A person has complete control over the amount of deep pressure required by simply tightening or loosening his braces in front. In evacuating the bowels no inconvenience has been complained of, as the wearer simply pushes the perineal band on one side, and notwithstanding the straining the hernia is kept reduced. This truss can be also used after the operation of radical cure and also can be used for a sleeping or bathing truss. Another point is that it causes no bulging.

J. DAY, Major, R.A.M.C.

[1] Exhibited at the British Medical Association meeting at Portsmouth, 1899.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 30, 1899.

THIS is an age of congresses and associations and some are apt to think too much is done in this direction; but just as knowledge is now a power as great as, if not greater than, it was in the time of BACON, so is the dissemination of that knowledge in itself a power for good. Certainly the multitude of subjects dealt with at the recent Congress of the Institute of Public Health held at Blackpool were concerned with matters as various as in some cases they were elementary, though we must not forget that what seems so simple to us is not necessarily elementary to the general public. The President, the Marquis of LORNE, in his opening address, touched on many subjects, but in nothing was he happier than in his reference to the prevention of small-pox. "When we reach the end of another century," he said, "and many other diseases besides small-pox are capable of being prevented in like manner by inoculation, shall we see then, as we see now, after great discoveries and great scientific results have been achieved, the very immunity and safety conferred by science produce a disbelief in the presence of danger, and the chief bulwark against the microbes of disease thrown down so as to give a fresh lesson to the short memory of the people?" The subject of "consumption" of course came very prominently into notice. The fact that the mortality from pulmonary tuberculosis had been reduced to one half within the past 35 years was attributed by Dr. ARTHUR RANSOME to better drainage of the soil and to better and more sanitary conditions of life. He did good service in maintaining that we have still to learn the real source and origin of the bacillus and its favourite habitat outside the human body. The simple method of eliminating tuberculosis from the dairy will not cause its disappearance from amongst us. Some startling figures in connexion with tuberculosis were brought before the notice of the Conference of Veterinarians by Mr. J. PENBERTHY. According to the veterinary work done in recent years no less than 30 per cent. of the milk-yielding cows were declared to be tuberculous. "The Sanitation of the Mosaic Law" formed the topic of a paper by the Very Rev. H. ADLER, Chief Rabbi, and although we cannot go the length of believing with him that the abstaining from the flesh of carnivora, as he is reported to have said, always results in immunity from animal parasites, there is no doubt that the prohibition of the eating of the flesh of any beast found after slaughtering to be diseased may have largely contributed to the relative immunity from tuberculosis of the Jews in times past. The rules for personal cleanliness, ventilation, abstinence, and self-control enjoined by the Pentateuch certainly went far to carry out the principles on which modern preventive medicine is based.

It is somewhat surprising that the subject of the purification of sewage by microbes did not occupy more attention at the Congress. In these days, when hamlets and villages are rapidly growing into towns and towns are becoming cities, the disposal of sewage in certain low-lying districts will shortly be a question of the greatest importance. The method of self-purification of sewage is one so eminently simple and so in accord with the laws of nature that we cannot help thinking that herein lies the solution of this important question and that the surmounting of the difficulties of technique is only a matter of time. The present position of the subject was summarised in some notes on the treatment of sewage by Mr. W. J. ORSMAN. He dealt with the question of standards of purity of effluents which gave rise to some interesting discussion. The estimation of nitrates and nitrites would appear to afford the best indication of the purification proceeding. Sir CHARLES CAMERON in a paper on the subject of the Adulteration of French Brandy and Substitution of Inferior Products, pointed out that Spanish brandy was very often of a far superior quality and cheaper because of the large quantity of sherry thrown on the hands of the growers owing to the changes in the public taste. The French—and the matter has been repeatedly referred to in THE LANCET—produce brandy from the fermentation of starch, beet-root, and grains; and in the opinion of Sir CHARLES CAMERON it is this which accounts for the fact that, although according to the French Government returns rather less than 900,000 hectolitres of brandy were produced in one year in that country, over 2,000,000 hectolitres were exported to England alone. The question of the regular medical inspection of school-children was warmly discussed. Undoubtedly there would be difficulties in the way, though these have been surmounted in America; but however great the difficulties or expense certainly the eyesight of children ought to receive more systematic attention than it does. We have no hesitation in affirming that there are hundreds of children at the present moment in our eleme"tary schools who are charged with, and perhaps censured for, stupidity, whose failing consists simply in their inability to see properly, in most cases owing to some remediable error of refraction.

The subject of cremation also raised, as usual, a lively discussion, and the stock arguments were advanced on either side, such as the pollution of the water-supply and the question of space on the one hand, and the medico-legal difficulties and sentimental objections on the other. The recent revelations at Aberdeen have certainly given a great stimulus to cremation in Scotland. Intimately mixed as the question is with sentiment it is not surprising that it should be debated with unusual vigour, but, like so many subjects about which men argue with vehemence, the truth probably lies between the two extremes. We are glad to see that the interest in the question of smoke abatement does not languish and two excellent papers were read and discussed with some animation. It is now several years ago since we raised our voice in condemnation of the wholesale pollution of air that could be seen going on in every direction, from the chimneys of factories, restaurants, and hotels. We believe we were the first to point out that practically the clause dealing with the suppression of this nuisance in the Public Health Act was a dead letter. Since then steps have been taken against those permitting this offence, and with

good effect. Papers on the subject were contributed by Dr. GRAHAM, Mr. WILLIAM THOMSON, F.R.S., and Mr. E. A. BRAYLEY HODGETTS. Interesting papers were also contributed on a subject which has advanced most satisfactorily during recent years—namely, the disposal of dust and dust refuse. The President of the Section on Chemistry and Meteorology (Mr. FLETCHER, the late senior inspector under the Alkali Works Regulation Act) presented a paper on a subject of importance and on which he is the highest authority amongst us—we refer to the discharge of noxious gases and vapours into the air from chemical works and factories. He pointed out how efficiently this work had been carried on and with what satisfactory results. Whereas formerly the inspector engaged in this important branch of public health administration was generally looked upon as a vexatious intruder, now he is looked upon not only as a benefactor to the public but to the manufacturers themselves. For his vigilance has led manufacturers not only to prevent the escape of noxious by-products but to utilise them and make them a source of profit. The recovery of chlorine from waste hydrochloric acid and sulphur from the offensive sulphuretted hydrogen are cases in point. Something like 300,000 tons of sulphur, of a value of over a million sterling, have been recovered from stinking alkali waste by the ingenious process elaborated by Messrs. CHANCE and CLAUS.

Space prevents our noticing all the subjects touched on at this meeting, ranging, as they did, from the care of infants and the abolition of the dummy teat, to, as we have pointed out, the abatement of smoke by Act of Parliament. But inasmuch as the public health rests very largely on the degree of enlightenment of public opinion we gladly welcome every contribution to this end.

THE year opened with a marked abstention of the English-speaking world from the French Riviera. In their concern, or rather dismay, at the loss of their most valuable guests the hotel-keeping and cognate interests on that much-frequented seaboard discovered two main reasons for the phenomenon—the Fashoda difficulty in the case of their British, the pro-Spanish sympathies of France in the case of their American, *clientèle*. There was, we believe, some truth in the surmise; but, however accounted for, it was certainly true that not till well on into March did the Riviera receive anything like the number of paying guests which it had harboured in former years. We made use of the fact to address a few words of friendly counsel to France's Latin sister, and in an article entitled "Italy's Opportunity"[1] we pointed out the rare chance presented her "to take occasion by the hand" and by due attention to the requirements of the English-speaking world to attract its lucrative custom and enjoy a legitimate *revanche* over her traditional competitor. That counsel, we regret to say, was not energetically or efficaciously followed up, and so Italy did not reap the harvest which she might have gathered in or enhance the reputation that she is entitled to by her possession of natural and other advantages even more attractive to the health-seeker than those of France. Lethargy, supineness, lack of enterprise—all the factors, in short, the resultant of which is what is colloquially called "missing one's tip"—were as much her characteristics in this as in other not less important fields of national development.

It is out of sheer goodwill to her—a goodwill which survives even her attempt to exclude the English-speaking practitioner from her winter cities and health resorts—that we this week return to the theme. "France's misfortune is Italy's opportunity" was never so true as in the day now passing. If the close of last century, it has justly been observed, witnessed a European coalition against the French Republic the close of the present witnesses a world-wide coalition against it—a coalition not military like the former, but moral; a coalition the inspiring motive of which is indignation at her *insouciance* in presence of the most scandalous defeat of justice known to modern times, at her apathy and indifference over judicial crimes which are a disgrace to latter-day civilisation. Her World's Show of 1900, though happily spared the "boycotting" at first suggested, will, there is no doubt, lose much of its most desirable recognition by the abstention of indignant thousands, while it is equally certain that her much-frequented Riviera, bringing her a yearly revenue, it is estimated, of four or five millions sterling, will register a falling off compared with which that of last winter was a bagatelle. Egypt, particularly the upper reaches of the Nile, may draw off an increased number of "sun-seeking" northerners; but for the multitude who have neither the means nor the time to go so far afield, there is always Italy—Italy with her lovely coast-line, with her sun-traps and salubrious resorts where nature vies with history and art and august association of every kind to attract and retain the "world's tired denizen." Such is the "occasion" offered to France's despised and needy rival. Will she rise to it?

We fervently hope so, for her own sake in the present and still more in the future. For if she fails to utilise the opportunity now thrust upon her she is not likely to have, she is certainly unworthy to deserve, another and a better. First, then, let her put her house in order, beginning with the approach to it, particularly by rail. The accidents that have recently beset her Mediterranean lines have been terrible enough to act as a deterrent to the traveller, all the more that they have been chiefly due to a habit which is becoming second nature with her—insufficiency of skilled *personnel* and that deplorably underpaid. No more avoidable railway "accidents," no more luggage robberies, no more vexatious custom-house exactions, no more of the many abuses which make a journey by the "Flying Tuscan" or the "Wild Lombard," as her express trains have facetiously been called, so much of "a chastened joy"—and then she will have removed a grievance or a set of grievances that have long put her at a disadvantage with her French rival. Again, let her hotel accommodation be less of an object-lesson in hygienic or sanitary defects, with (in Milan or Florence, for example) a better water-supply, with (throughout her whole hotel system, indeed, "from the Alps to Etna") a more vigilant attention to ventilation and a more rigorously enforced veto on the disgusting

[1] THE LANCET, Feb. 18th, 1899, p. 461.

and now seen to be dangerous habit of making the carpet do duty for the pocket-handkerchief. Even her hotel cuisine leaves much to be desired and the excessive use of tinned meats and tinned vegetables of unknown origin and antiquity is still open, even in hotels of the first class, to the memorable denunciation which it incurred from the late Sir SPENCER WELLS. Above all, let her public hygiene be brought up to British standards and let her clear herself of the reproach that the instant the traveller diverges from the route of English-speaking travel he takes "a header into the middle ages," and then, then only, will she have risen to the opportunity presented to her in the now approaching winter.

THE annual meeting of the British Association at Dover has called forth many addresses of much general and scientific interest. It is, however, in the reports of special committees that we must look for the results of original work and material of permanent value. Seven years ago, at the instance of the late Sir DOUGLAS GALTON, a committee was appointed to investigate and report on "Mental and Physical Deviations from the Normal among Children in Public Elementary and other Schools." Reports have been presented each year drawn up by the secretary, Dr. FRANCIS WARNER, whose long-continued researches in this direction are well known to the profession. The reports 1893-96 deal with the points observed in the children, both developmental and nerve signs, and their significance, and also show the methods of observation and description employed. Various means of study were used in following out the distribution of certain conditions of development and brain status among the social classes and in methods of classification of children on scientific principles. The last three reports deal exclusively with 1120 children—597 boys and 523 girls—"who appeared to require special care and training on physical or mental grounds." For the purpose of obtaining facts the records of cases collected by the Childhood Society were placed at the disposal of the committee. The cases are derived from three sources: (1) records of children seen among 50,000 children examined in schools, 1888-91; (2) the same number of children examined similarly, 1892-94; and (3) cases collected by the Charity Organisation Society in various parts of London and presented for report as to mental and physical status (these were examined and individually reported on by Dr. WARNER). A catalogue was prepared in which these cases are distributed as boys and girls, firstly in age-groups; secondly under school standards, and classed as idiots or imbeciles, feebly-gifted, mentally exceptional (that is, children who, while not necessarily mentally dull and without brain power, appeared to be deficient in certain mental characteristics and in moral sense, such as habitual liars, thieves, or incendiaries); thirdly as epileptics; and fourthly as children crippled, maimed, deformed, or paralysed. Further characters recorded comprise ill-health, partial blindness, or defect of sight, while some of the children are dumb. Classification is also made as to combined conditions, such as imbeciles who are also epileptic or children feeble mentally and partially blind. In all 34 sub-classes are given, showing clearly the many difficulties that arise in making appropriate arrangements for the care and education of defective and epileptic children. That the selection of children for classes of special instruction or educational homes requires medical skill is shown by the fact that of 149 boys and 89 girls collected by the Charity Organisation Society and teachers as being defective only 88 boys and 68 girls were on examination found so far subnormal as to be reported "exceptional children."

The association of defective conditions has been laboriously worked out and tabulated, showing that defective congenital development of the body is co-related with low vitality as well as with a tendency to incoördinated brain action and mental dulness, the proneness to ill-health being most marked at early ages and among the girls. The facts further show that among the defective classes of children there is a much greater tendency than with average children to become delicate under an adverse environment, and this is most marked under seven years of age. The large proportion of both boys and girls who present "abnormal nerve-signs" or irregularities in movement indicates the importance of trying to remove each sign of brain-disorderliness in detail by carefully adapted physical training. Such abnormal conditions do not appear to pass off spontaneously, as is shown in cases of developmental defect, among which these nerve-signs are as frequent with the older as with the younger children. For the improvement of the brain condition of children below the average in mental and physical development much labour is required on the part of skilled teachers, combined with good hygienic surroundings.

Since the issue of the report of the Royal Commission on Blind, Dumb, and Exceptional Children in 1891 much attention has been directed to the care and education of those mentally defective and epileptic. The School Boards of London and other cities have established classes of special instruction, but there is as yet a want of general knowledge as to the conditions of the classes of children here referred to who constitute about 1 per cent. of the child population. The Childhood Society has published valuable reports showing what are the scientific means of discriminating these children and making diagnosis as to their condition and requirements in educational training. The National Association for Promoting the Welfare of the Feeble-minded has provided three training homes; in that at Hendon systematic teaching is carried on daily. Committees of the Education Department, the Local Government Board, and the Home Office have all reported as to the necessity of making provision for the defective children in schools under Government supervision. So that it will be seen that there is now considerable activity in dealing with what is felt to be an important problem. Defective children exist in all classes of society. In many instances medical care is necessary, while early diagnosis is a means of preventing further degeneration of brain power. These children frequently require attention when apparently in sound health, while accompanying defects of sight and hearing and nasal obstructions call for early and skilful treatment; moreover, diet and hygiene have to be attended to. It would be well if the frequent association of congenital defects, nasal obstructions, fits in infancy, and other bodily faults in childhood, with some degree

of defect of brain, were constantly remembered by the practitioner called upon to treat them. The Elementary Education Act dealing with defective and epileptic children passed in the last session of Parliament empowers a school authority to establish homes for epileptic children and special classes or homes for defective children, while clauses provide for grants of public money towards the expenses thus incurred. The working of this Act will necessitate the appointment of medical men in selecting the children to be thus specially provided for, and it will become the further duty of the medical officer to examine and report on each child from time to time as to the continuance of such conditions as render special treatment desirable. It is obvious that a careful medical examination should be made, and this will call for some experience and judgment as to the physical and mental status of the child. It is in connexion with such work, as well as in promoting the best means of education with the object of training stage by stage and improving each form of mental ability while removing causes of disabilities, that we value such scientific work as that of the Committee of the British Association and of the Childhood Society. The recent Elementary Education Act leaves many details as to inspection in its various forms, including the money grants to be given in aid of this special form of training, to the discretion of the Education Department upon whom a great responsibility is thus thrown. We presume that the Department will seek professional advice with regard to the important questions arising in framing rules or by-laws as to the discrimination of the children, who while thus specially provided for are to a considerable extent segregated from others, and in consequence may, after school years, find the ordinary positions of employment not readily open to them. It is obviously desirable also, both in the interest of the children themselves and in that of the taxpayers, that means should be provided for the settlement of disputed cases. It is possible that a parent may consider that his child is deaf only and not feeble-minded, and claim for him proper speech training under the Education Act, 1893, for deaf children and that he shall not be placed with children feeble-minded and branded as such. Again, it is possible that the child may be refused by the education authority on the ground that he is "imbecile," while the parents do not recognise such to be the case, and the child may thus be left unprovided with education. For parents cannot be compelled to send their children to an asylum for imbeciles. In view of such contingencies some machinery for arbitration should be provided in order that the Act may work equitably.

The research work here reviewed shows that scientific methods of education may be applied to the training of defective brains. The Education Department, the Local Government Board, and the Home Office have schools under their charge, yet no medical adviser has been appointed who should be responsible in assisting when questions arise involving a technical and scientific knowledge of childhood. In view of the many questions concerning school hygiene and blind, deaf, and defective children which have been pressed upon the Government departments by public opinion, would it not be a wise step to appoint one or more scientific advisers whose special experience qualifies them to give guidance in determining the action that should be taken?

Annotations.

"Ne quid nimis."

ANALYSIS BY DEPUTY.

ACCORDING to a recent decision it would appear that the certificate of analysis, based on the results obtained by an assistant and not by the public analyst himself, although signed by the latter, is invalid. The instance is brought into the greater prominence because the public analyst concerned was the President of the Society of Public Analysts last year and the President of the Institute of Chemistry this year—an institution which grants a diploma that satisfies the Local Government Board as to the qualifications of an analyst holding a public appointment under the Food and Drugs Act. The case came before Mr. Slade at the Southwark Police-court and related to a summons against certain ice-cream vendors for selling ice-cream which on analysis proved to be injurious to health. The samples examined contained 28,000,000 micro-organisms per cubic centimetre and amongst these were at least 200 specimens of the bacillus coli communis, the normal inhabitant of the human bowel. In spite of this damning evidence of the utter unfitness of the cream for human consumption the case failed because Dr. Stevenson admitted that the analysis had not been made by him personally but by his bacteriological assistant, Mr. Pakes. He stated, however, that he had reviewed the work. The magistrate said he would have accepted the certificate without suspicion but for Dr. Stevenson's admission. He considered that the contention of the counsel for the defence that the summons must fail because the Act distinctly says that the analysis must be made by the public analyst was right, and so he felt bound by Act of Parliament to reject the certificate. The decision has caused considerable discussion and excitement amongst chemists and others, as in effect it would undermine a principle which obtains universally. Where is the line to be drawn as to the limits of work which an analyst must do in order to justify an opinion? Is he to clean his own test tubes and to personally supervise the purification of the chemical reagents which he employs in the act of analysis, be it chemical or bacteriological? It is scarcely to the point to argue that an analyst should not be permitted to take more than one appointment on the ground that he cannot do personally all the work of these appointments, for the work of one appointment alone may easily involve more practical inquiry than one person is capable of doing. We cannot accept the justice or reasonableness of the decision; it is enough that the analyst is responsible for the accuracy of the work upon which he signs and tenders a certificate. But Mr. Slade and the solicitor who obtained the dismissal of the summons by his ingenious suggestion—though clearly it was no defence against the real charge—will perhaps be surprised to learn that they did not interpret the Food and Drugs Act correctly. If they will refer to a case, Bakewell *versus* Davis, decided in 1894, they will find that it was held by the Queen's Bench Division that it is not necessary that an analyst should himself personally make the analysis or be present during all the processes, for it is sufficient if it be done under his supervision. There is really no reason, therefore, to take the case to another tribunal, although leave was given to do so.

INFLUENCE OF MATERNAL INEBRIETY ON THE OFFSPRING.

DR. W. C. SULLIVAN of H.M. Convict Prison, Parkhurst, publishes in the *Journal of Mental Science* (July, 1899) a number of observations on the rôle of maternal alcoholism as an agent in race degeneracy. It has been observed by most authorities that those classes of individuals who exhibit marked incapacity or inability to adapt themselves to normal social conditions—e.g., many feeble-minded and imbecile subjects and a considerable proportion of habitual criminals and prostitutes—are largely recruited from the offspring of the alcoholic. Thus, of a series of 1000 idiots examined by him Bourneville[1] noted alcoholic parentage in 62 per cent., Marro observed an alcoholic parentage in 46 per cent. of criminals, while 45 per cent. of inmates in the Swiss prisons for juvenile offenders showed a similar past, and Madame Tarnowsky found that 82 per cent. of Russian prostitutes were the offspring of alcoholic parents. To observations of this kind it has been objected that as parental drunkenness is an easily traceable antecedent it would tend to figure disproportionately among the causes assigned in such inquiries, and that in many cases it may get the credit of bringing about in the stock a degenerative taint which really existed prior to it and of which it was, in fact, merely a symptom. To avoid this possible source of fallacy it seemed desirable to adopt at the outset an opposite standpoint and to take as an end of the investigation, not alcoholism in the ancestry of the degenerate, but degeneracy in the descendants of the alcoholic. For this purpose a series of cases of chronic drunkard women who have borne children was selected from the female population of Liverpool prison, among whom habitual inebriety had been very prevalent. All cases exhibiting a phthisical or syphilitic history were excluded from the inquiry as well as cases which were the subject of marked neurotic taint as manifested by a specially early and violent cerebral reaction to alcohol. This process of selection avoids the more obvious source of fallacy in such inquiries, though certain qualifications have still to be considered. These drunkards who find their way to prison belong, for the most part, to the lowest grade, where even moderate alcoholic indulgence implies diminution of other food supply; further, their excesses are, as a rule, persistent and intense. Again, it is an unquestionable fact that in the criminal as in the insane alcoholic, the nervous manifestations of intoxication occur with notable frequency, while non-nervous disorders are relatively rare and secondary. Thus, in the cases comprised in this inquiry the special nervous localisation of the poison was very marked. 31 of the women had suffered from one or more attacks of alcoholic delirium, while 24 others, without actual delirium, had occasional visual hallucinations. Suicidal impulses, disorders of cutaneous sensibility, and cramp in the extremities were noted in a considerable number of cases. Similar characteristics were found to be present in the case of alcoholic relatives of the patients. Of 120 female inebriates whose histories were trustworthy there were born 600 children of whom 265 (44·2 per cent.) lived over two years, while 335 children (55·8 per cent.) died when under two years of age or were stillborn. With a view to establish comparisons with a healthy non-alcoholic standard, it was found that 21 of the women were able to give details regarding female relatives (sisters or daughters) of sober habits who had contracted marriages with sober males and had borne children. Thus, of sober mothers, 28 in number, there were born 138 children of whom 33 (23·9 per cent.) died when under two years of age. Thus the death-rate amongst the children of the inebriate mothers was nearly two and a half times as great as that amongst the infants of sober women of the same stock. Another feature established by the observations was the progressive death-rate in the alcoholic families when three or more children were born. This will be best seen from the following table:—

—	Cases.	Dead and still-born.
		Per cent.
First born	80	33·7
Second born	80	50·0
Third born	80	52·6
Fourth and fifth born	111	65·7
Sixth to tenth born	93	72·0

These figures illustrate very clearly the progressively augmenting results of the influence of the mother's alcoholism on the offspring. The type of alcoholic family suggested by these results—a type characterised by decrease of vitality in the successive children—is fully realised in many of the observations, of which the following is an instance. S——, aged 34 years; previous imprisonments 41. Drunkard since first confinement; beer and spirits. Suffers from gastric catarrh and cramps; had one attack of delirium tremens. Attempted suicide twice; hysterical convulsions. Husband drunkard; never delirious. His and her parents sober. Six children; first, second, and third living healthy; fourth, aged six years, of low intelligence, habits wet; fifth, aged four years, epileptic idiot; sixth, stillborn; seventh, a recent abortion. In other cases we find the first-born healthy, one or two of the next dying from infantile convulsions, and the last child or two stillborn. Of the children comprised in the series 219 lived beyond infancy and of these nine, or 4·1 per cent., became epileptic—a proportion extremely high as compared with the frequency of epilepsy in the general mass of population, which, according to Bruce Thompson, is less than 1 per 1000.

[1] Compte-rendu de Bicêtre de l'Année 1896.

THE SECTION OF MEDICAL ELECTRICITY AT THE BOULOGNE CONGRESS.

THE newly-founded section of Medical Electricity at this year's Congress of the French Association for the Advancement of Science was well attended and proved to be a distinct success. The attendance at its meetings averaged about 20 and numerous papers—over 30—were read. The discussions which followed the communications were also good. The President, Professor Bergonié of Bordeaux, in a short introductory address dwelt upon the importance of exactness in observation and precision in the terminology used by those who spoke of electrical matters. He insisted that the "medical electrician" must have as wide a knowledge as possible of the whole field of electricity. The communications covered the field of electricity in medical and surgical practice, of x ray work, and of new forms of apparatus for medical purposes. Among the communications the following were noteworthy. Régnier: On Alternate Currents of Low Periodicity in the Treatment of Peripheral Neuritis. Lewis Jones: The Treatment of Infantile Paralysis. Crocq: Treatment of Perforating Ulcer by Faradaisation of the Posterior Tibial Nerve. Allard: Treatment of Chronic Glaucoma by Galvanisation of the Cervical Sympathetic. Bordier: Electrolysis in Stricture. Marie: The Electrical Reactions of Muscles after Death. In the x ray branch of work Marie read a paper on Stereoscopic Radiography and showed a very good form of stereoscope. Rémy of Boulogne showed an extremely ingenious localising apparatus of his own construction. De Nobèle read a paper on the Treatment of Lupus by x rays. Luraschi of Genoa described an electrical cabinet to be worked from the street mains.

Leuillieux recommended the use of asbestos cloth as a pliable material for covering electrodes. Leduc showed a series of most interesting photographs obtained, not by the action of light, but by the rays discharged from a negatively electrified point. This "light" could be reflected, refracted, and polarised. It would not pass through opaque objects but passed well through glass. In fact, it behaved just as ordinary ultra violet light, but was invisible to the retina. A "unipolar" induction coil for exciting x ray tubes with "earthed" anticathode was shown at the demonstration in the x ray room in the hospital. It was designed for use with tubes for internal cavities of the body. The tubes when in action could be handled without shock or risk of puncture.

RESECTION OF THE CERVICAL SYMPATHETIC FOR GLAUCOMA.

PROFESSOR THOMAS JONNESCO of Bucharest,[1] having made careful studies on the cervical sympathetic ganglion and its relations to the vaso-motor and secretory mechanisms in the eyeball, came to the conclusion that the excision of the ganglion (on one or both sides according to circumstances) would have a beneficial effect in glaucoma. In a case of this disease which came under his care in 1897 he therefore concluded to remove the superior cervical ganglion and this was carried out for the first time in Sept. 13th, 1897. Since then he has performed eight operations in all, a summary of the cases with results being now published. The results in two individual cases and the general results obtained in all of the cases were as follows. Case 1. A man, aged 50 years, suffered from absolute glaucoma. This was of the chronic irritative variety with intercurrent attacks. Bilateral resection of the cervical sympathetic ganglion was performed. After the operation there were marked contraction of the pupils (myosis) and diminution of intra-ocular tension even to the extent of hypotony. There were a cessation of pain and a distinct improvement in vision, the patient being able to see fingers at two metres distance and to go about and avoid obstacles in his path. He has been free from any further attack since the operation. Case 4. A woman, aged 49 years, suffered from chronic irritative glaucoma, and had been operated on by the performance of double iridectomy without benefit. She suffered from peri-orbital pain and could scarcely read letters six centimetres high at the distance of one metre. The operation of bilateral resection of the cervical sympathetic ganglion was performed on Nov. 7th, 1897. After the operation there appeared contraction of the pupils and coloboma of the iris. There were a perceptible diminution of intra-ocular tension and a disappearance of the pain. The eyesight improved sufficiently to admit of her reading ordinary type and letters. The improvement continued; nine months after the operation there were no pain and no exacerbation of symptoms. The general condition was good and the patient was now able to read and write with ease. The general results may be summarised as follows: (*a*) lasting reduction of intra-ocular tension in all cases except No. 5; (*b*) myosis of moderate or marked degree; (*c*) disappearance of peri-orbital pain; (*d*) disappearance of attacks of irritative glaucoma; and (*e*) a considerable and lasting improvement of vision in all cases where there had been previously some existence of light perception and of visual acuity, showing that the optic papilla had not as yet undergone atrophy. It is explained that the excision of the superior cervical ganglion implies an excision of nerve-fibres supplying the muscles of the iris, the blood-vessels of the eye, and the entire uveal tract and the nerves supplying the peri-bulbar muscular fibres of the capsule of Tenon; while the secretion of the aqueous humour is diminished. At the same time the contraction of the iris diminishes the iridal angle and renders more patent the lymphatic orifices at the angle and makes the exit of fluid through them easier. The relaxation of the muscular fibres of Tenon's capsule also diminishes pressure on the ocular veins. It is pointed out that the technique of the operation is simple. The operator should incise the free anterior border of the sterno-mastoid, draw it aside, cut through its deep fascia so as to expose the carotid sheath, open the latter and separate the jugular vein from the carotid and vagus. The ganglion will be found in the space between; it should be excised above and below and detached. The operation is practically bloodless and can be finished in about 15 minutes.

[1] Wiener Klinische Wochenschrift, May 4th, 1899.

HUMANITY IN HOSPITALS.

IN an article on "Humanity in Hospitals" published in the October number of the *Deutsche Revue* Sir Dyce Duckworth compares British with foreign hospitals, extolling the former in a manner which cannot fail to satisfy even the most exacting patriot. He acknowledges that this question is a delicate one (*einem heikeln Gegenstand*), but he has the courage of his opinions and is prepared for criticism. The highest development of humanity as exhibited in hospitals is, he says, to be found in English-speaking countries. The Anglo-Saxon race is in this respect ahead of the Latin race and has succeeded in creating a type of hospital which excels those of other countries in general management, in the efficiency of the trained nursing staff, in the careful attention given to each individual patient, and in the sanitary administration. In British and American hospitals there is an atmosphere of home comfort such as exists nowhere else, and it is the rule, though of course there are some exceptions, for intimate and brotherly relations (*ein innigeres und brüderlicheres Verhältnis*) to be established between the physicians and the patients. No small part of the advantages that English-speaking patients enjoy is due to the fact that many of the trained nurses are highly educated ladies. American nurses, however, learn too much and their discipline leaves something to be desired. In Germany strenuous efforts are being made to train nurses on English lines. In France hospital nursing is generally bad and in Spain and Italy it is worse, because in the latter countries the Church does not encourage women to be trained in secular institutions as nurses. With respect to medical and surgical treatment what strikes English observers is that in the continental hospitals the patient is regarded too much as a "number," a "case," a mere unit in morbidity statistics, and too little as a suffering fellow creature in need of sympathy and care. In conclusion Sir Dyce Duckworth analyses some of the ideals aimed at by conscientious medical practitioners.

INSUFFICIENCY OF HEART-MUSCLE.

MARTIUS[1] in the course of a very full clinical and pathological study describes the following varieties of the above condition. 1. Pure acute insufficiency of the heart-muscle as the result of overwork or excessive exercise. This occurs more readily in untrained persons than in those accustomed to steady labour. The results of acute strains on a healthy heart are soon recovered from under the influence of rest, but oft-repeated strains lead to permanent cardiac weakness, and in such cases the contrast between the forcible apex-beat (of the strained and dilated heart) and the feeble pulse perceived at the wrist is characteristic. 2. Acute myocardial insufficiency is the primary and essential cause of paroxysmal tachycardia. The enormously increased frequency of the pulse-rate is secondary. With recovery there

[1] Klinische Therapeutische Wochenschrift, No. 16, 1899.

follows a return of cardiac efficiency owing to a rapid and almost sudden disappearance of the cardiac dilatation. The abnormal area and situation of the apex-beat now disappear and a slowing of the pulse and an increased power of the heart-beat are perceptible. 3. Henschen has called attention to a dilatation of the heart occurring in very weak and anæmic girls as the result of overwork. This condition develops slowly and persists for a long time and really trifling causes will then bring about in these subjects symptoms of acute dilatation and distress. The constitutional symptoms of the former condition are loss of energy, palpitation, headache, dyspnœa on slight exertion, and loss of appetite for food. 4. Cardiac weakness and dilatation occur in children from a primary insufficiency of the cardiac muscle. This is found in weak and predisposed children. French physicians—e.g., Germain Sée and others—regard this condition as due to the rapid growth of body and of stature which takes place towards the close of childhood, a growth in which the heart-muscle also participates. Others have, however, noted that the essential cardiac condition is not one of true muscular increase of growth or hypertrophy but rather one of cardiac dilatation. Scrofulous children are especially predisposed to this, and it appears that the demands of school life may be the exciting cause. Such children are pale and weak and suffer from headache and loss of appetite and learn with difficulty. Moderate anæmia and at times albuminuria are present. Various degrees of the affection can be clinically recognised. Highly characteristic is the effect of exercise on the heart. Climbing stairs may send the pulse up from 80–96 to 120–140, while the objective palpitation increases and the radial pulse is almost imperceptible. In severe cases the apex-beat may reach laterally to the anterior axillary line. 5. In adults alcohol is the most important predisposing cause, though in this as in other things the effects vary with different individuals.

THE BOARD OF AGRICULTURE AND INVESTIGATIONS OF OUTBREAKS OF CONTAGIOUS DISEASES AMONGST ANIMALS.

WE have received a letter from a correspondent complaining of the method at present adopted by the Board of Agriculture in connexion with investigations of outbreaks of contagious diseases amongst animals. In the particular instance adduced by our correspondent the recent reappearance of rabies in Wales was quoted and it was pointed out that Captain MacIlwaine, R.N., who was sent by the Board to investigate the matter, has no scientific veterinary knowledge He appears to have been unaccompanied by an expert. The subject has excited a good deal of attention and comment in the veterinary periodicals during the past few years and it certainly does seem to us illogical that outbreaks of contagious disease amongst animals should be investigated by men who have no special qualifications for the task. The position is about on a par with that at present in vogue in many of our large towns whereby inspectors of animal flesh intended for human food are chosen from amongst plumbers, masons, and omnibus conductors. But because the position is not unique it is none the less an anomalous one. It is not so very long ago that the Government had a properly organised veterinary department with a veterinary surgeon at the head. Under its control cattle-plague, foot-and-mouth disease, and pleuro-pneumonia—three great scourges of the bovine race and sources of enormous annual loss to agriculturists and dairymen—disappeared permanently. Contrast with it the present state of affairs. The title "Animals" has been substituted for "Veterinary" Department, a proceeding which has given much umbrage to the members of the veterinary profession and an ex-army officer has been placed at the head instead of a properly qualified expert. The results have been only too obvious in the case of swine fever where nothing but failure can be reported, while the delay caused by unnecessary red tape procedures favours the spread of the disease before any efficient action is taken. The travelling non-veterinary inspector is not out of place where no diagnosis has to be made, for he is fully capable of seeing that proper disinfection and modes of burial are carried out, but to send him in the first instance to investigate and advise regarding an outbreak of disease (as appears to have been done in the case referred to by our correspondent) is clearly putting him in a false position. Here the services of a veterinary surgeon surely are required.

THE MEDICAL SOCIETY OF LONDON.

THE 127th session of the Medical Society of London will commence on Monday, Oct. 9th, when an address will be delivered by the incoming President, Dr. Frederick Roberts, to be followed by a discussion on Personal Experience in Relation to Serum Therapeutics and Antitoxin Treatment, in which the following gentlemen are expected to take part: Dr. Mitchell Bruce, Dr. Heron, Dr. Sidney Martin, and Dr. J. W. Washbourn. The Lettsomian Lectures on "Cancer of the Breast" will be delivered in March and April by Sir William Mitchell Banks and the Oration in May by Dr. Kingston Fowler. Among others who have promised to read papers at the ordinary meetings may be mentioned: Dr. Rose Bradford, Dr. H. A. Caley, Dr. W. J. Gow, Mr. Jonathan Hutchinson, jun., Dr. A. P. Luff, Mr. J. D. Malcolm, Mr. C. Mansell Moullin, Dr. A. Morison, Dr. Campbell Pope, Mr. F. C. Wallis, Dr. J. W. Washbourn, and Mr. G. Bellingham Smith.

TROPHIC AFFECTIONS FOLLOWING GONORRHŒA.

AT the meeting of the Société Médicale des Hôpitaux of Paris on July 21st, Dr. P. E. Launois described the following remarkable case in which very rare and severe complications of gonorrhœa—some of which are not at all recognised in this country—were found. A man, aged 40 years, was seen in March, 1899. He was pale, emaciated, incapable of making any movement, and suffered from pain everywhere. Most of his joints were the seat of deformity; his limbs were atrophied, the muscles having almost disappeared. The cause of these grave troubles was gonorrhœa. A history of rheumatism was obtained only in the case of his great-grandfather. The patient had never had syphilis but he had suffered many times from gonorrhœa. The first attack occurred at the age of 20 years and was complicated by orchitis. At the age of 30 years he had a second attack accompanied by arthritis of the right elbow and knee and of the joints of the feet. He became completely well in about three months. At the age of 33 years a third attack was accompanied by articular troubles of the metatarsus, ankles, and left knee. The muscles of the lower limbs rapidly atrophied. A quite characteristic deformity of the toes appeared, which were projected outwards with the great toes overriding the neighbouring ones. He completely recovered in five months. Six months later he had another attack accompanied by arthropathy of the joints which had been first attacked. Recovery was slower on this occasion. In December, 1896, he had a fifth attack of gonorrhœa with arthropathy of the ankle-joints. The elbows, left wrist, and right knee were successively affected. He lost appetite and strength and became rapidly emaciated. The head appeared as if fixed on the shoulders and could not be moved; the vertebral joints were tender to pressure and flexion and extension of the trunk were impossible. The left knee was normal. The right knee was greatly enlarged; the deformity appeared especially to be due to hypertrophy of the femur and tibia.

The feet were voluminous, almost shapeless, masses. The toes were considerably enlarged and turned outwards; the second toe on both sides overlapped the great toe. The lower limbs were much atrophied, all the muscular prominences had disappeared, and voluntary movements were impossible. The skin of the soles and of the lateral and dorsal surfaces of the toes was much thickened. The internal border of the great toe was the seat of enormous stratified epidermic proliferation—keratoses, forming as it were a sheath embracing the inner half of each toe. The nails were thickened and striated longitudinally. A urethral stricture was present and some drops of muco-pus could be squeezed out by pressure. Under vapour baths taken in bed slight improvement occurred. The cutaneous horns became detached, exposing superficial ulcers with granular surfaces. Some weeks later the nail of the left great toe fell. Small epidermic horns were formed on the dorsal surface of the right foot. Cases similar to this have been previously published. The first is that recorded by Widal[1] which may be thus summarised: "Generalised eruption of horny masses with falling of nails and polyarthritis of gonorrhœal origin; relapse after a second attack of gonorrhœa two years after cure of the first condition." The second case was published by Jeanselme.[2] A third case was published by Jacquet and Ghika.[3] The patient had three attacks and showed deforming arthropathies and papillary dermatitis, diffuse and in foci, with hyperkeratosis. Chauffard[4] made a detailed study of "papillary hyperkeratosic dermatitis," and expressed the hope that this curious chapter of *blennorrhagisme infectieux kératogène* would soon be completed by new observations. Dr. Launois suggests that these diverse lesions are due to the action on the nervous system of toxins produced by microbial growth in the urethra and bladder.

THE DEATH OF MR. J. DICK.

THE Eastbourne coroner held an inquiry on Sept. 26th into the circumstances attending the death of Mr. John Dick, a medical practitioner of Pevensey-road. On the night of Sept. 14th a bottle of medicine was dispensed by Mr. Dick and given to a patient who had called for it. She took one dose with the result that she became very ill, and another medical man was called in who treated her. Later in the day Mr. Dick called and the patient told him what had occurred, adding that she believed he had poisoned her. Mr. Dick thereupon said: "It is only iron and bitters, and to show you it is not poison I will take some myself." He took two doses and rode away home on his bicycle. On his arrival he fell against the door and when his sister opened it she found him foaming at the mouth. He asked for a stomach-pump, and three other medical men did all they could but without avail. He improved to a certain extent but died on the morning of Sept. 17th. The post-mortem examination showed that death was due to strychnine poisoning, and the two medical men who gave evidence at the inquest said that in Mr. Dick's surgery there was a bottle of chloroform water on one shelf while immediately below it was another similar bottle containing a solution of strychnine. Both bottles were unlabeled. Mr. Dick had evidently mistaken the one for the other, for previously to his death he had said that the medicine contained iron, chiretta, and chloroform water. There was, however, no chloroform water in the mixture as dispensed, but there were about two ounces of solution of strychnine. The unfortunate gentleman has paid for his carelessness with his life, but it must be acknowledged that to keep two similar bottles close together, both unlabeled, both containing a colourless solution, but with the all-important difference that the one was a deadly poison and the other was comparatively harmless, was a state of things that was bound sooner or later to bring about a calamity. The old adage, "Familiarity breeds contempt," has rarely had a more tragic illustration.

[1] Bulletin de la Société de Dermatologie, &c., 1893.
[2] Ibid., 1895, p. 275.
[3] Bulletin de la Société Médicale des Hôpitaux, 1897, p. 93.
[4] Ibid., 1897, p. 569.

CONGENITAL DEFECT OF THE BRAIN.

IN the last volume of the *Arbeiten aus dem Institut für Anatomie und Physiologie des Centralnervensystems* of the Vienna University (part vi., 1899), issued under the editorship of Dr. H. Obersteiner, an account is given by Dr. Lappert and Dr. Hirschmann of a very interesting case, medically and legally, of congenital defect of the brain. The child lived 11 days. In the necropsy which was made the following conditions were found. The spinal cord was well formed except that the pyramidal tracts were absent and that some degeneration was found in the fibres of the posterior columns. There was a complete absence of the cerebral hemispheres, basal ganglia, and superior corpora quadrigemina, together with the part of the cerebral peduncles related to these structures. The eyes were developed but the optic nerves were atrophied. Sections of the spinal cord stained with carmine showed that the large anterior cornual cells were normal, a fact which would indicate that cerebral impulses coming down *viâ* the pyramidal tract fibres were not a *sine quâ non* to stimulate development of these cells and that their absence was not sufficient to cause an arrest of development. No sufficient explanation could be given of the presence of degenerated fibres in the posterior columns. The fact is interesting and noteworthy that a child without cerebral hemispheres should have lived to full term and survived for 11 days after birth as in this case.

A GROUP OF CARDIAC AND EPILEPTOID SYMPTOMS IN ALCOHOLIC SUBJECTS.

BY the application of the Roentgen method of photography and with the use of the phonendoscope Dr. A. Smith has been able to demonstrate an increase in the size of the heart in every case of chronic alcoholism which was examined by him.[1] He states that these patients are particularly liable to epileptiform attacks which may occur under two different forms, *a* and *b*. (*a*) In the former class of case the patient, without any warning, is suddenly attacked by a sort of sub-acute delirium with mental stupor (*dämmerzustand*) which lasts several days, and on recovery from this there is no recollection at all as to what had occurred during the period of illness. This phenomenon is parallel to the condition of post-epileptic automatism with amnesia on subsequent recovery which occurs in certain classes of epileptics. Another type of case is marked by a different course of events. The patient, most commonly on rising in the morning, experiences a feeling of discomfort which soon increases to one of distress with pain over the cardiac region and followed in some instances by epileptiform convulsions. The sufferer is often driven to seek relief from this anguish and suffering in alcohol, which at best, however, offers only a temporary relief. This, however, soon proves ineffective and the patient passes next into a condition of delirium, during which he may commit violent and dangerous acts or may suffer from destructive or homicidal impulses, of which, however, on recovery there is no recollection left. In both classes of cases there was always present an acute enlargement of the heart. This under proper treatment and abstinence from alcohol would speedily disappear and the patient would then gradually regain good health. (*b*) The second class of case includes those subjects who have a strong neurotic heredity. In these cases, while the patient appears

[1] Münchener Medicinische Wochenschrift, No. 43, 1898, p. 1372.

to be recovering from the cardiac trouble, a fresh set of symptoms makes its appearance in the fourth, fifth, or sixth week of convalescence. The patient is at this time noticed to be getting irritable and restless, especially in the morning, and to be suffering again from a return of the symptoms of cardiac discomfort and distress. On examination the heart is now found to be enlarged, while the pulse is quickened to from 100 to 140. A curious mental change is also noticed. The patient becomes generally depressed in spirits and suspicious in disposition, and the slightest thing upsets him. Should he while in this condition seek the aid of alcohol the usual result would be the production of an epileptiform fit. If, however, a non-alcoholic regimen is strictly maintained and a tonic and special treatment is adopted the heart may gradually resume its normal condition and remain so more or less permanently. The best results in the way of treatment were obtained from prolonged baths during the attacks, outdoor exercise including Swedish movements pursued in the open air during the intervals, and the internal administration of trional and tonics.

THE BACILLUS ICTEROIDES THE CAUSE OF YELLOW FEVER.

THE Commission appointed by authority of the President of the United States to investigate the cause of yellow fever has submitted its report. Its work was done in Havana, in a well-equipped laboratory, and 22 cases were the subject of study. The important conclusion of the Commission is that the bacillus icteroides of Sanarelli is the true cause of yellow fever, a conclusion quite contrary to that of Sternberg. The following are the conclusions of the report: 1. That the micro-organism discovered by Sanarelli and by him named the "bacillus icteroides" is the cause of yellow fever. 2. That yellow fever is naturally infectious to certain animals, the degree varying with the species; that in some rodents local infection is very quickly followed by blood infection; and that while in dogs and rabbits there is no evidence of this subsequent invasion of the blood monkeys react to the infection the same as man. 3. That infection takes place by way of the respiratory tract, the primary colonisation in this tract giving rise to the earlier manifestation of the disease. 4. That in many cases of the disease, probably the majority, the primary infection, or the colonisation in the lungs, is followed by a "secondary infection" or a secondary colonisation of this organism in the blood of the patient. This secondary infection may be complicated by the co-instantaneous passage of other organisms into the blood, or this complication may arise during the last hours of life. 5. There is no evidence to support the theory advanced by Sanarelli that this disease is primarily a septicæmia, inasmuch as cases do occur in which the bacillus icteroides cannot be found in the blood or organs in which it might be deposited therefrom. 6. That there exists no causal relationship between the Bacillus X of Sternberg and this highly infectious disease and that the Bacillus X is frequently found in the intestinal contents of normal animals and of man, as well as in the urine and the bronchial secretion. 7. That, so far as the Commission is aware the bacillus icteroides has never been found in any body other than one infected with yellow fever; and that whatever may be the cultural similarities between this and other micro-organisms it is characterised by a specificity which is distinctive. 8. That the bacillus icteroides is very susceptible to the influences injurious to bacterial life; and that its ready control by the processes of disinfection, chemical and mechanical, is assured. 9. That the bacillus icteroides produces *in vitro*, as well as *in vita*, a toxine of the most marked potency; and that from our present knowledge there exists a reasonable possibility of the ultimate production of an "anti-serum" more potent than that of Sanarelli. The conclusions of the Commission are, unfortunately, of considerable import to New York, for a Reuter's telegram published in the *Times* says that 46 cases of yellow fever were reported at Key West on Tuesday last.

THE HEALTH OF MILAN.

OUR Rome correspondent, under date Sept. 26th, writes: "Seldom or never resorted to as a winter city the Lombard capital is a great 'entrepôt of travel,' harbouring, if but for a few days at a time, a larger number of 'forestieri' during the year than any other populous centre in Italy. Its sanitary record is therefore of vital interest to the travelling public, particularly to that considerable section of it which uses it as a 'half-way house' between the British Isles and Brindisi *en route* to the East. THE LANCET, ever since the opening of that route some 30 years ago, has never failed, from time to time, to call attention to the health conditions of the great entrepôt, not seldom, indeed, having to sound a note of warning as to the prevalence of infectious disease among its population. Of late, however, there has been a marked improvement in those conditions; smallpox, previously endemic in the lower quarters, has been all but stamped out by sedulous and systematic vaccination and revaccination, and typhoid fever has so diminished as only to await a more abundant and purer water-supply from Lake Como or the Alps to disappear altogether. In the meantime the statistics compiled under the highly efficient auspices of the municipal 'Ufficio d'Igiene' tell a very reassuring tale—such as at the commencement of the tourist season may well allay the hitherto more or less justified misgivings of the travelling world. In the decennium 1872–81 the average mortality was 33·42 per 1000; in the decennium 1882–91 it had sunk to 28·51; and now within the last seven years, 1892–99, it has been as low as 23·77. The greatest mortality is still among the child population under five years of age, while as to individuals above 40 years of age the greater number die in the winter months. The maladies which claim the most numerous victims are those of the chest, being in the proportion of 17·7 per cent., and the residual 82·30 per cent. of deaths are attributable to 162 different ailments. The improvement noted in the returns of each successive decennium is coincident, moreover, with a very large and very steady increase in the population, so that at the present rate of amelioration Milan, from being bracketed with Munich as one of the least healthy, is now in a fair way to rank among the most healthy cities in Europe. *Quod felix faustumque sit!*"

RESEARCHES ON BLOOD-PRESSURE.

DR. CHARLES COLOMBO, director of the Institute of Kinesitherapy in Rome, has recently conducted a long series of researches on blood-pressure in man, using for that purpose Professor Mosso's new sphygmomanometer. After a full survey of the literature of the subject and a description of Dr. Mosso's instrument and the method of using it Dr. Colombo[1] criticises the conclusions which have been drawn from experiments made with the aid of Basch's sphygmomanometer, and explains that the correct blood-pressure must be sought for when the oscillations of the pulse have reached their full amplitude and not when they are made to disappear by the pressure of the instrument employed. Dr. Colombo next records the results of his experiments on the variations of blood-pressure in a healthy man and shows that during 24 hours there is a regular and periodical curve, slight differences manifesting themselves in individuals tested. The average pressure is estimated at 80 millimetres of

[1] Transactions of the Royal Medical Academy of Turin.

mercury. The effect of food is then commented on and after meals the blood-pressure is shown to fall and to remain ower than the normal for some little time. The exact period, however, is not stated in the abstract before us. Dr. Colombo is now engaged in making further observations on the effect on the blood-pressure of dry heat and cold, hot and cold baths, exercise, massage, the use of drugs, alcohol, &c., and his results will be published in due time.

A PARLIAMENTARY paper was issued on Tuesday last giving a return of the certificates of successful primary vaccination received by the vaccination officers of Poor-law unions in England and Wales. The return covers the periods between Jan. 1st and June 30th of the years 1898 and 1899 respectively. Of the 646 unions from which particulars have been received 479 show an increase and 165 a decrease, the other two unions giving the same numbers in the two periods under consideration. There were] 77,399 more successful primary vaccinations in the first six months of the year 1899 than in the corresponding portion of the year 1898, the increase being equivalent to 27·78 per cent.

THE Egyptian Government, as will be seen by reference to our advertising columns, require a professor of ophthalmic surgery at the Government School of Medicine, Cairo, and offer £164 a year for his services. The gentleman appointed would have, we understand, 60 beds at Kasr-el-Aini Hospital under his charge as *ex-officio* ophthalmic surgeon, besides an out-patient department open daily, so that the work would not be light. The post, however, is a good opening, because the selected candidate will be allowed private practice and Egypt may be called, without exaggeration, the home of granular ophthalmia.

WE have received during the week the annual report of the Asylums Committee of the London County Council, embodying the reports of sub-committees upon Banstead, Cane Hill, Claybury, Colney Hatch, Hanwell, The Heath (Bexley), and Horton Asylums; and the annual report of the General Board of Commissioners in Lunacy for Scotland. We have also received the report of the Commissioners of Prisons and the Directors of Convict Prisons for the year ending March, 1899, and the annual report of the General Prisons Board in Ireland.

A SPECIAL feature is being made of the opening of the winter session at the London Hospital, where a dinner of old students will be held in the College Library on Oct. 2nd, Many of the vice-presidents and members of the House Committee of the London Hospital will attend this dinner to celebrate the opening of the much-enlarged medical school.

AT a meeting of the Council of the Society for the Promotion of the Study and Cure of Inebriety held on Sept. 26th Dr. W. Wynn Westcott, Her Majesty's coroner for North-East London, was unanimously elected President of the Society in succession to the late Dr. Norman Kerr.

THE death is announced as having taken place on Sunday 1st at Eastbourne, in the seventy-seventh year of his age, of Mr. Joseph White, D.C.L. Durh., F.R.C.S. Edin., and ex-President of the British Medical Association and Consulting Surgeon to the Nottingham General Hospital.

TYPHOID FEVER IN SOUTH WALES.—At the monthly meeting of the Ebbw Vale District Council held on Sept. 21st Mr. J. W. Davies, the medical officer of health, reported an outbreak of typhoid fever. He stated that 30 cases had already been notified and that fresh cases were occurring daily.

THE WORKMEN'S COMPENSATION ACT, 1897.

BY ALBERT BENTHALL, F.R.C.P. EDIN.

AFTER 14 months' experience of the working of the Workmen's Compensation Act it is possible to form an opinion as to its merits and defects. I should like, however, first to premise that I consider that judgment from a medical point of view should always be from a standpoint of absolute impartiality and fairness and that especially in a review such as this the Act should be considered bearing in mind both the interest of employers and also of those workmen who have *bonâ-fide* claims upon them.

To the honest working-man suffering from the results of accident occurring in the course of his employment the Act has been a boon the nature of which is immeasurable, truly beneficent in its aim, and capable with some carefully considered amendment of being yet more useful. Having had personally before me some thousands of claims under the Act, I have been struck with wonder at the depth of misery from which the people have been relieved when the bread-winner has been unfortunately suffering from disablement by accident. From inquiries I have made I have gathered that before the Act came in force the usual course of events was that after an accident of a serious nature first the savings of the thrifty workman disappeared, then the pawnbroker gradually annexed all his portable property, and after this the Poor-law had to step in, with a result that the working-man was pauperised and the rates were burdened. From all this, in the majority of instances, the workman has been saved, at a cost to the employer which is infinitesimal, for with the insurance rates ruling the latter can at little expense not only save himself from the pecuniary loss caused by the compensation but from all trouble and annoyance in dealing with claims as they arise.

The Act, beneficent, as I have stated, in its aim, requires amendment in many important particulars both in the interest of the employer and the workman; the procedure should be such that the employer can at once recognise *bonâ-fide* claims and pay the half wages to the workman when due without delay. Yet he should be adequately protected from fraudulent or exaggerated claims and he should not have to pay for the consequences of disease or old age, but only for the results of accident itself. It is evident that this latter question, which is not touched on in the present Act, is as important to the working-class as a whole as to the employers, for if employers continue to have to pay heavily for trivial accidents, because the health or age of the claimant is such that the slightest accident causes a serious disability, they will be forced to insist on their workmen passing a medical examination before engagement and to have an age-limit beyond which men will not be employed. If such rules were to be general the serious nature of the result to those not of the strongest physique or in advanced life need not be insisted on.

It is, from a medical point of view, essential that the *bonâ-fide* sufferer from accident should have his weekly half-wage compensation paid, as was contemplated by the Act, regularly after the expiration of the first fortnight after the accident, for it is evident that the workman suffering from privation, unable to obtain proper food, and also with constant anxiety as to provision for those depending on him, will not recover his usual health and strength as soon as one not under these unfavourable circumstances. The consideration of this point obliges me to refer to a question which is essentially one for the legal profession and on the solution of which it would be out of place for me to dogmatise. I trust, however, I may be permitted to throw out a suggestion.

There is a great deal of litigation, causing usually many weeks' delay, in cases of accidents which are genuine and admitted to be such, turning solely on the question as to whether the claim is to be dealt with under the old Employers' Liability Act or under the Workmen's Compensation Act—the matters in dispute being legal questions as to negligence on the part of the employer or as to the condition of his plant. During the inevitable delay the workman is

without means and I have seen many cases where the resulting privation has prolonged the disability considerably. I venture to suggest that in admittedly *bonâ-fide* cases of accident provision should be made for the prompt payment of the half wages under the Workmen's Compensation Act, which will have to be paid in any case, leaving the workman under proper regulations to recover further, if his claim should eventually be decided to come under the Employers' Liability Act. In effecting this change, which would, as I have shown, be both to the interest of employer and workman, it would be essential that the employer should be protected from imposition and that he should be able easily at first sight to fully understand the nature of any injury upon which a claim is made. The present notice of injury required by the Workmen's Compensation Act is most inadequate. The time in which it is given is not a bar to the maintenance of proceedings—which nullifies the part of the clause "as soon as practicable" or "within six months from accident or death"—the latter limit being absurd from a medical point of view, as in the majority of cases a medical examination on behalf of an employer six months after an injury would be useless and six months after death impossible.

Again, in Section 2, Clause 2, the notice of injury is only required to give the name and address of the person injured "and shall state in ordinary language the *cause* of the injury and the date at which it was sustained." There appears to be no requirement to give particulars of the *nature and extent of the injury*. It may be said that the employer is at liberty to send a medical man to find this out, but this is clearly impossible to insurance offices dealing with a large number of accidents, such as the office with which I am connected, which has, I believe, received about 40,000 notices of accidents since the commencement of the Act in July, 1898, a proportion only of which have developed into claims.

If there is injury from accident causing disability to work there is, or should be, a medical man attending the case, and in my opinion the workman should be bound to send within a reasonable time with the notice of claim a certificate from the attending medical man, clearly stating the nature and extent of the injury, and also whether there is any concurrent disease likely to affect the duration of disability. A very short form only would be necessary, but it should be fuller than many hospital certificates that I have seen, endorsed "not to be used for begging purposes," where the simple statement "injury to leg," may turn out to be a grazed shin, or a Pott's fracture almost certain to leave permanent lameness. The certificate should be short but efficient, and there should be some machinery introduced into the Act for payment of a fee to the certifying medical man. I mention this point as I have frequently been told by workmen that they have not attempted to get a medical certificate as they have no means, and in cases where a man has a family and no money coming in for the first fortnight after an accident, with a prospect in addition of receiving half wages only for a prolonged period, this is not unlikely. I feel quite sure, however, that the expense of obtaining a statement as to the *nature and extent of the injury, and whether likely to be influenced by concurrent disease*, immediately after the accident is first attended, would result in an enormous saving of money and in the almost entire elimination of bogus claims. The State in casting a heavy liability on employers should pay for their reasonable protection, and an arrangement could easily be made for this without entailing difficulty of management or undue expense.

With regard to claims for accident—where the injury has been enhanced by disease or old age, and the disability therefore prolonged—I think that the medical referees under the Act should be expressly empowered to take into consideration the influence of disease or old age and to assess the actual damage caused by the accident alone. This brings me to the chief cause of the failure of the Workmen's Compensation Act from a medical point of view. The Act, with a great originality, contemplated that in all cases of dispute as to the medical points of a claim any committee, arbitrator, or judge should have the services of a State-appointed medical referee to report on any matter that seemed material to the question, and the clause in which this is provided would apparently cover the disease question as well as all questions as to the injury itself. Unfortunately the use of the word "may" instead of "shall" in the clause has rendered the whole machinery of the Act with regard to medical referees practically a dead letter; as a rule they have not been called upon to report, and purely medical questions in which there has been direct conflict of medical opinion have been decided by lay arbitrators in haphazard fashion, without asking or receiving any aid from the skilled referees provided by the Act. I think, in any amendment of the Act, that this state of affairs should be remedied, and I would urge that the Act should go further, and that instead of a mere report being called for from the medical referees, which report might be open to mistaken interpretation, the medical referees should be styled medical assessors, and should sit with the arbitrator or judge and advise him upon the medical points of a case, in the same way that assessors sit with a judge in a Wreck Commissioner's court.

I do not propose to lengthen this paper by giving detailed instances of cases of bogus claim, of malingering, and of exaggeration of the effects of injury, or of cases in which heavy payments have been made where the accidental injury was trivial and a pre-existing diseased state the entire cause of prolonged disability, but I may say that numberless cases have come under my notice, and employers and those who insure them have been largely victimised in a way that would have been impossible if arbitrators and judges had availed themselves of skilled medical advice. The settlement of genuine claims entails a very large outlay, and it is only right that those desirous of carrying out the provisions of the Act in a liberal spirit should be protected as far as possible from claims which do not arise from *bonâ-fide* accidental injury, or in which the disability is prolonged by the effects of old age or of a pre-existing diseased state.

THE SPREAD OF PLAGUE.

IT is difficult to give a brief summary of the spread of plague. Since the appearance of the epidemic in China five years ago it has been slowly but surely advancing to the westward and, geographically speaking, the disease is widespread. It has, as everyone knows, raged n certain parts of India, where it still prevails, and has shown itself in Africa, Persia, the Mauritius, in Russia at Astrakhan and in Samara, and in Portugal at Oporto. Unfortunately, plague, once it has succeeded in establishing itself, shows a singular tenacity of life and after manifesting itself actively it may disappear and reappear from time to time so that it is very difficult to become assured that its manifestations have finally ceased and that no recrudescence or reappearance will subsequently occur in any given district or locality where it has once prevailed. This has been a marked feature throughout the history of the present epidemic. Quite recently at Alexandria, for example, to cite one out of many instances of the treacherous nature of the disease, some cases of plague occurred ten days after it had apparently ceased in that city and the Quarantine Board had to resume its operations. How far this kind of endemicity of the disease is attributable to such factors as dirt, overcrowding, and defective hygiene from their intrinsically furnishing conditions congenial to the development and spread of the disease on the one hand, or to their increasing the difficulties of tracing out and eradicating the disease-cause working in their midst on the other hand, it is difficult to determine; but both are no doubt operative at the same time. Obviously where a community into which the plague bacillus is introduced is small solitary cases of the disease can be at once discovered and the requisite measures promptly taken for stamping out the infection. The most reliable measures which, after all, can be practically taken in dealing with plague are the speedy evacuation of the infected locality, the disinfection of the infected houses, the thorough opening out of plague-infected localities, soil, and buildings to air and sunshine, and the adoption of Haffkine's method of inoculation by the non-affected as a safeguard against attack.

At Oporto some 75 cases of plague and 30 deaths have occurred since the commencement of the outbreak and the disease is still prevailing. The disease so far appears to be limited to Oporto. As regards land quarantine and military cordons they are almost sure to prove futile because from the nature of the case these measures (supposing them to be theoretically efficacious) are adopted too late: people have already

left the infected districts on the mere rumour of the presence of cases of plague and before it has been officially declared, to say nothing of the impossibility of making such measures effectual, however rigorous they may appear to be. At Poona we learn that the number of attacks of plague among Europeans is increasing. The disease is still continuing at Hong-Kong where several fatal cases are reported in the official returns furnished to the Colonial Office.

ANNUAL REPORT OF THE IMPERIAL BACTERIOLOGIST FOR INDIA FOR THE YEAR 1898-99.

CAPTAIN LEONARD ROGERS, I.M.S., writes and signs this report in his capacity of Officiating Imperial Bacteriologist, Dr. A. Lingard being on sick leave. The report is a most satisfactory one. It shows much activity during the year and records some excellent and important results. The laboratory is now in full working order and all the essential requirements are supplied. During the last four months the preparation of mallein, tuberculin, tetanus antitoxin, and other bacterial products of therapeutic value in veterinary practice was undertaken, but by far the most important work carried out during the year was that connected with the rinderpest experiments. These were inaugurated by Captain Rogers, and more than two-thirds of the report are taken up, first with an excellent *résumé* of recent work on this subject in South Africa; secondly, with a summary of experiments carried out in India similar to those in South Africa; and thirdly, with a report on the duration of the infection in the skins and bones of animals which had died from rinderpest.

The progress made in inoculating animals with pure unfiltered bile from an animal which had died from rinderpest and testing them at intervals in order to determine the duration of immunity is not sufficiently advanced to lead to any conclusion. It may be noted, however, that one animal inoculated by this method and tested 10 days afterwards with an injection of 10 cubic centimetres of virulent blood, though showing no external signs of disease, died from colic on the twenty-fifth day, and the post-mortem examination showed well-marked lesions of rinderpest in the fourth stomach and less marked ones in the cæcum. Filtered bile was found to give no immunity, which conforms with the results recently obtained in Africa. There is no mention of the search for the *contagium vivum* left on the filter, but we assume that this part of the investigation will be undertaken later. Dr. Edington's glycerinated bile method was also tested but so far without success. Of eight animals inoculated with glycerinated bile and afterwards tested with virulent blood six of them died and two had a severe attack of rinderpest.

Unfiltered extract of liver after being kept for 11 days produced the disease, whilst the filtered extract produced little or no protection. Experiments were also made as to the possibility of attenuating the virus and as to the length of time the virus could be preserved in blood from an infected animal kept under different conditions. It was shown that hydrogen gas had no effect, either in preserving or in attenuating the virus, over ordinary air and that the length of time the virus remained virulent was uncertain, the longest period being 19 days. In another set of experiments a series of animals were inoculated with blood obtained from animals at different periods after injections of large doses of virulent blood subcutaneously. It was found that if the blood was taken after the reaction was over and the temperature had fallen to normal no effect was produced. If, on the other hand, it was taken after the reaction had begun and up to the time when it had attained its height the disease was always produced, but if the temperature was on the decline it was uncertain whether the disease would be produced or not. The blood of "salted" animals, then, during the period of reaction contains the virus in an active state. No modification of the virus takes place in the blood of the "salted" animal, for the disease produced in healthy animals was always severe and never in any degree modified. Another important fact ascertained is that there is a very great difference in the susceptibility of hill and plain animals, hill cattle being much more easily affected. This fact, Captain Rogers thinks, raises the important question as to whether there may not be a considerable difference in the liability of different breeds of plain cattle in different parts of India and renders it necessary to carry out the simultaneous method of inoculation—i.e., the subcutaneous injection of protective serum on one side of the animal and the injection of virulent blood on the other—with great caution before coming to a final conclusion as to the value and practicability for India of the simultaneous method of Turner and Kolle which was found so useful in South Africa. Further experiments will be carried out with the object of investigating this important subject. In another direction the work at the Imperial Bacteriological Laboratory has been most useful. Hides of animals which have died from rinderpest have always been considered to be infective. Captain Rogers shows by a series of experiments that the skins of animals which have died from rinderpest and which have been either dried in the sun or shade or treated with salt or lime in the shade for two or three days and then kept hung up in a room for a further period of from four to 12 days no longer contain any infection even when submitted to the extreme test of extracts of them being injected under the skin of susceptible animals. In regard to the bones of infected animals experiments proved that the outside is rendered innocuous in a few days when placed in the sun, but that the virus remains active in the marrow inside the shaft of a long bone for at least two weeks. It was found, however, that the marrow quickly loses its power of infection when taken out of the bone and exposed to the sun's rays.

AN OLD PRACTITIONER.

FEW are the medical practitioners living to-day who can look back to a professional career beginning in 1835 and remember the days when they passed the ordeal of examinations (such as they were) nearly 70 years ago. Dr. William Williams Morgan of Newport, Mon., is able to do this and on the eve of his ninetieth birthday, which he celebrated on Sept. 24th, he made public the story of his appearance before the board of examiners to qualify him as a medical practitioner two years before the ascent of the Queen to the throne. He had attended lectures at Guy's and the London Hospitals and it should be mentioned that he was a native of what was then the village of Merthyr Tydvil. "I was the young man from the country," said Dr. Morgan. "I found the examiners seated together, horseshoe-shape, while I had to sit behind the table facing them. At length one of them said to me, 'Mr. Morgan, are you a native of Wales?' 'I am, sir,' I replied; 'I suppose that you took me for a foreigner.' (My hair was long and curly and black as the raven.) 'I certainly did,' he returned. 'Well, sir,' I said, 'I assure you I can boast of not having a drop of English blood in my veins, much less a more foreign one.' 'Well done, Welshy,' cried my questioner—it was Sir Astley Cooper, who had married a Welsh lady and was very kind to Welshmen—while all the examiners roared with laughter, during which I found myself led off by an attendant to 'Paradise'—the room where successful candidates were taken—and I knew I had passed. But fancy my temerity saying that to a full bench of examiners." Dr. Morgan's first appointment was as house surgeon to Bury Dispensary and in 1838 he went to Newport to commence practice. At first he was so poor that he went afoot and walked miles into the country to visit his patients. One evening he was so dead tired that he was glad to give a pauper a shilling to wheel him part of the way home in a wheelbarrow. In 1839 Newport was the scene of a most serious riot in connexion with the Chartist agitation. Between 4000 and 5000 armed Chartists threatened the Westgate Hotel—which in a sense was the symbol of government—but their coming was expected and a small body of soldiers, skilfully placed in the front rooms of the hotel, fired volley after volley into the mob, with the result that 14 were killed and many injured. The young practitioner went to the aid of a man who lay writhing and struggling in front of the hotel, but the man only gasped "Water!" and expired. He was also summoned to a supposed unfortunate non-combatant whose arm it was said was broken by a stray bullet as he was going to the post-office with letters; but when he was moved it was found that he had a long sword down the leg of his trousers.

Dr. Morgan practised in Newport for nearly 60 years and

occupied one house for more than 50 years. He was mayor in 1864 and was a prominent Freemason; in fact, on the afternoon of his ninetieth birthday—Sept. 24th—the Provincial Grand Master of the Province of Monmouth and a deputation of about 25 leading Freemasons called upon him and presented him with an illuminated address in token of their brotherly love and esteem. The graceful speech he made in response was proof that he still retains those qualities of head and heart which endeared him to his brethren in years past. All Dr. Morgan's exciting experiences seem to belong to his earlier period. Now, a hale, cheerful, broad-minded old man, he spends the evening of life in his own home, interested in the news of the day and in the progress of medical and general science, taking his daily walk, enjoying his pipe, and retaining what he long since won—namely, the respect and esteem of all who know him.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Wiltshire County District.—Another county—this time Wiltshire—has decided after a decade of reflection to appoint a medical officer of health, and although the total population concerned is but some 276,123 we welcome the appointment as a healthy indication. Mr. John Tubb Thomas has been selected to fill the post, but as he only entered upon his duties on March 31st last it would be altogether unfair to expect him to tell us much of the sanitary condition of the county during 1898. As is usual when a county medical officer of health takes up his duties he finds but few of the district reports printed, but there is little doubt that a change in this particular will soon become apparent—a change which is probably in large degree brought about by the interest which in the first instance a county volume is calculated to excite. As regards the vital statistics of the county during 1898 the birth-rate was 25·0 per 1000 and the infantile mortality was 101·6 per 1000 registered births, while the general death-rate was 14·4 per 1000. In the matter of isolation accommodation the urban districts are, with the exception of three—among which is Salisbury—nominally provided for, but we must wait for a future report to hear what manner of isolation is meant. Probably Mr. Tubb Thomas will find it convenient to make a survey of the county in a sanitary sense before he has been long in office and we shall then be in a position to discuss the progress which we trust we shall be able to record from year to year.

Hammersmith Sanitary District.—The Public Health Committee of this vestry recommended during 1898 that the notification of measles should be made compulsory. Much, however, to Mr. N. C. Collier's regret the recommendation was not accepted, and in commenting upon this matter he draws attention to the fact that during the year here in question there were but 57 deaths from the notifiable diseases, as against 128 from measles alone. Mr. Collier considers that some of the cases of measles which he saw last year were as severe as ordinary cases of small-pox. In reminding the vestry that there were 3069 deaths registered from measles in London during 1898 he expresses the opinion that society will soon be discontented with this terrible waste of human life which no efficient means have been adopted by the public health service to prevent. Attention is called to the fact that if anything approaching this number of deaths were to be caused by small-pox there would immediately ensue a considerable agitation against the conditions which permitted such a state of affairs.

Glasgow Urban District.—The population of the city of Glasgow (731,675) is of such magnitude as to rank the city as the second only to that of London in the British Isles, and although perhaps there are larger aggregations of populations in England outside London they are not all grouped under one sanitary authority. The population is, as may be imagined, distributed over Glasgow in very varying degrees of density and we are told that in Pollokshields there are four persons per acre to 338 in Brownfield. The marriage rate for 1898 was 19·6, the birth-rate 33·2, and the death-rate 21·2, all rates being calculated as rates per 1000. There were 36 cases of typhus fever with three deaths during the year under review, the fatality rate being 16·6 per cent. Difficulty was, as is usual in these days, found in the early recognition of the disease. As regards the prevalence of enteric fever in Glasgow there would appear to be a tendency in certain parts of the city to an increase rather than a diminution of the disease, and it is of interest to note that this increase has been accompanied by an increase in the diarrhœa death-rate. Dr. Chalmers furnishes in his report charts showing the seasonal distribution of enteric fever in Glasgow, as also tables showing the prevalence of this disease in the several wards for the periods 1881–90, 1891–97, and for 1898, and these figures should prove of use in subsequent comparisons, but it cannot be said that a study of the figures both for enteric fever and for diarrhœa are exactly re-assuring.

St. James's, Westminster.—This district is in the happy position of possessing no cowhouses or slaughter-houses within its limits, but with the view of educating the vestry as to the conditions which may obtain elsewhere Dr. James Edmunds records the result of applying the tuberculin test to the cows of Her Majesty's dairy at Windsor. As doubtless some of our readers are aware no less than 36 out of the 40 cows in this herd were found to be tuberculous, not only by means of the tuberculin test, but also by post-mortem examination. Needless to say, Dr. Edmunds uses this circumstance for a text by which to enforce the desirability of eliminating tuberculous cows and, at any rate for the present, of boiling our milk. Dr. Edmunds, while discussing the use of disinfectants, draws attention to the undesirability of pouring certain disinfecting substances liable to corrode metal pipes or fittings into water-closets, and he observes that these corrosive substances tend to eat away the Portland cement which is used for the junctions of stoneware pipes. As he remarks, a house in which it is constantly necessary to pour disinfectants down the drains is obviously unfit to live in. Dr. Edmunds discusses in an interesting manner the *pros* and *cons* in reference to outside soil-pipes, the question having been raised in rather an acute form in connexion with the newly erected Carlton Hotel in Pall Mall. It was apparently discovered after the building had been erected that the sanitary arrangements, such as water-closets, baths, &c., were inadequate. It was urged that to lead soil-pipes over the completed and decorated masonry of the building would have necessitated many angles in the pipes themselves and have caused much depreciation in the artistic value of the exterior. But while the desirability or otherwise of making any exception to the by-laws in the case of wealthy companies was being discussed in the vestry the construction of inside soil-pipes was proceeding apace and in the end the by-laws were nominally vindicated by the imposition of a forty-shilling fine and an understanding that no further penalties were to be asked for. The by-law in question was, however, eventually modified by a resolution to apply the words "whenever practicable" to all buildings, whether old or new. An elaborate account is given in the report now before us of the sanitary arrangements of the Carlton Hotel, even down to the arrangements for telephonic communication. We note with interest that arrangements have been made to supply water to the top of the hotel even when there may be insufficient pressure in the mains of the water company. Special pumping engines have been erected in the basement by which the lower pressure main-water will be always available for this purpose.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6381 births and 4506 deaths were registered during the week ending Sept. 23rd. The annual rate of mortality in these towns, which had decreased from 26·8 to 21·1 per 1000 in the four preceding weeks, further declined last week to 20·6. In London the rate was 18·9 per 1000, while it averaged 21·7 in the 32 provincial towns. The lowest death-rates in these towns were 8·5 in Swansea, 10·6 in Huddersfield, 13·7 in Derby, and 14·7 in Wolverhampton; the highest rates were 27·2 in Salford, 27·6 in Newcastle, 27·9 in Liverpool, and 28·6 in Sunderland. The 4506 deaths in these towns included 964 which were referred to the principal zymotic diseases, against numbers decreasing from 1080 to 1185 in the four preceding weeks; of these, 673 resulted from diarrhœa, 87 from diphtheria, 81 from "fever" (principally enteric), 48 from

whooping-cough, 41 from measles, 31 from scarlet fever, and three from small-pox. The lowest death-rates from these principal zymotic diseases occurred in Plymouth, Bristol, Swansea, and Huddersfield, and the highest rates in Portsmouth, Manchester, Burnley, Preston, Sheffield, and Hull. The greatest mortality from measles occurred in Burnley; from "fever" in Portsmouth, Nottingham, Salford, and Sheffield; and from diarrhœa in Bolton, Manchester, Preston, Hull, and Sunderland. The mortality from scarlet fever and from whooping-cough showed no marked excess in any of the large towns. The 87 deaths from diphtheria included 42 in London, 11 in Sheffield, eight in Leicester, five in Liverpool, and three in Leeds. Three fatal cases of small-pox were registered last week in Hull, but not one in any other of the 33 large towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday last, Sept. 23rd, was 2758, against 2538, 2549, and 2640 at the end of the three preceding weeks; 364 new cases were admitted during the week, against 252, 298, and 336 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 170 and 133 in the two preceding weeks, rose again last week to 137, but were 37 below the corrected average. The causes of 53, or 1·2 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Salford, Leeds, Newcastle, and in 12 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Nottingham, Liverpool, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had decreased from 24·1 to 20·2 per 1000 in the three preceding weeks, further declined to 19·0 during the week ending Sept. 23rd, and was 1·6 per 1000 below the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 10·8 in Leith and 14·2 in Paisley to 21·7 in Edinburgh and 22·0 in Perth. The 581 deaths in these towns included 114 which were referred to diarrhœa, 11 to "fever," eight to scarlet fever, six to measles, five to diphtheria, and three to whooping-cough. In all 147 deaths resulted from these principal zymotic diseases, against 225 and 174 in the two preceding weeks. These 147 deaths were equal to an annual rate of 4·8 per 1000, which was 0·4 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhœa, which had been 193 and 136 in the two preceding weeks, further declined last week to 114, and included 50 in Glasgow, 19 in Edinburgh, and 16 in Dundee. The 11 deaths referred to different forms of fever showed a decline of four from the number in the preceding week, and included five in Glasgow, three in Paisley, and two in Edinburgh. The fatal cases of scarlet fever, which had been seven and three in the two preceding weeks, rose again last week to eight, of which six occurred in Glasgow. The six deaths from measles showed a slight further increase upon recent weekly numbers, and included three in Glasgow and two in Edinburgh. The fatal cases of diphtheria, which had been three and seven in the two preceding weeks, declined again last week to five, of which two occurred in Dundee. The deaths referred to diseases of the respiratory organs in these towns, which had been 54 and 68 in the two preceding weeks, declined again to 64 last week, and were 21 below the number in the corresponding period of last year. The causes of 21, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 37·4 and 35·1 per 1000 in the two preceding weeks, further declined to 29·8 during the week ending Sept. 23rd. During the past four weeks the death-rate in the city has averaged 33·2 per 1000, the rates during the same period being 20·5 in London and 21·7 in Edinburgh. The 200 deaths registered in Dublin during the week under notice were 35 below the number in the preceding week, and included 51 which were referred to the principal zymotic diseases, against numbers increasing from 58 to 80 in the three preceding weeks; of these, 23 resulted from measles, 20 from diarrhœa, five from "fever," two from scarlet fever, one from whooping-cough, and not one either from small-pox or diphtheria. These 51 deaths were equal to an annual rate of 7·6 per 1000, the zymotic death-rates during the same period being 3·1 in London and 4·3 in Edinburgh. The deaths referred to measles, which had increased from 14 to 23 in the three preceding weeks, were again 23 last week. The 20 fatal cases of diarrhœa showed a decline of 25 from the number in the preceding week. The deaths resulting from different forms of "fever," which had been eight and nine in the two preceding weeks, declined again to five last week. The mortality from scarlet fever exceeded that in the preceding week. The 200 deaths in Dublin last week included 54 of infants under one year of age, and 36 of persons aged upwards of 60 years; the deaths of infants showed a decline, while those of elderly persons exceeded the number in the preceding week. Seven inquest cases and four deaths from violence were registered, and 89, or nearly one-half, of the deaths occurred in public institutions. The causes of 11, or nearly 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Inspector-General of Hospitals and Fleets Thomas Browne is placed on the Retired List at his own request; Staff-Surgeon Percy W. Bassett-Smith has been appointed to Haslar Hospital; C. S. Woodwright, to the *Briton*; G. Welch to the Admiralty Medical Department; E. R. Dimsey, D.S.O., to the *Boscawen* for Sick Quarters, Portland; and A. G. Wildey to the *Alexandra*. Surgeons: B. F. Parish to Malta Hospital, and G. T. S. Sichel to Haslar Hospital.

ROYAL ARMY MEDICAL CORPS.

Major A. W. P. Inman is seconded for service as Physician and Surgeon, Royal Hospital, Kilmainham. Captain James W. Jennings, D.S.O., from the Seconded List to be Captain, vice J. A. Murison, resigned.

Major R. J. McCormack has embarked in the transport *Zibenghla* for service in South Africa. Major F. A. B. Daly has embarked for service abroad. Major J. Fallon has arrived at Leeds. Lieutenant-Colonel Johnstone (retired pay) is appointed a medical officer at St. George's Barracks, vice Lieutenant-Colonel Temple, V.C. Lieutenant-Colonel J. Latchford (retired pay) is transferred from Galway to Bodmin.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Captain A. W. T. Buist (Bengal) and of Captain H. Smith (Bengal) are placed permanently at the disposal of the Government of the Punjab. The services of Lieutenant F. D. Browne (Madras) are placed temporarily at the disposal of the Government of Bombay for employment on plague duty. The services of Captain A. D. C. Pond (5th Bengal Infantry) are placed temporarily at the disposal of the Government of Bombay for employment on plague duty. The services of Captain H. J. Walton (Bengal) are placed temporarily at the disposal of the Government of Bengal. Captain W. H. Gray to officiate as Superintendent, Central Prison, Lucknow.

INDIAN MEDICAL SERVICE EXAMINATION.

An examination for some appointments to Her Majesty's Indian Medical Service will be held in London in February, 1900.

YEOMANRY CAVALRY.

Royal North Devon (Hussars): Surgeon-Lieutenant J. R. Harper to be Surgeon-Captain.

VOLUNTEER CORPS.

Artillery: 2nd Cinque Ports (Eastern Division, Royal Garrison Artillery): Surgeon-Lieutenant S. McC. Boyd to be Surgeon-Captain. *Rifle:* 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment: Surgeon-Captain E. H. Douty, resigns his commission. Surgeon-Major A. Baker resigns his commission and is granted the rank of Surgeon-Lieutenant-Colonel, with permission to continue to wear the uniform of the battalion on his retirement.

DEATHS IN THE SERVICES.

Surgeon-General James Macmillan Scott Fogo, on Sept. 20th, aged 77 years. He entered the service in

1844, was promoted surgeon in 1855, surgeon-major in 1864, deputy surgeon-general in 1872, surgeon-general in 1879, and retired in 1882. He served with the Royal Artillery in the Crimea and was in medical charge of the left siege train at the fall of Sebastopol (medal with clasp and Turkish medal).

The Government of India is considering a scheme for the sanitary improvement of Quetta cantonment.

Correspondence.

"Audi alteram partem."

"KISSING THE BOOK."

To the Editors of THE LANCET.

SIRS,—Referring to your annotation in THE LANCET of Sept. 23rd, p. 853, it would appear that the witness did not express his desire to be sworn with uplifted hand and it cannot be too widely known that this must be done by the witness in accordance with the words of the Oaths Act, 1888, 51 and 52 Victoria, ch. 46, section 5:

"If any person to whom an oath is administered desires to swear with uplifted hand in the form and manner in which an oath is usually administered in Scotland he shall be permitted so to do, and the oath shall be administered to him in such form and manner without further question."

It is not enough to object to kissing the book on sanitary grounds, the words of the Act must be used. I would suggest that, if you are kind enough to publish this letter, such of your readers as are liable to be called upon to take an oath should cut out the section and paste it on to a card or piece of stiff paper to be carried in the waistcoat pocket for use if necessary. Any coroner after being legally asked to administer the Scotch oath—i.e., with uplifted hand—is at once bound to administer it; any question is illegal, while a refusal could be met by an intimation on the part of the witness that he would apply for a *mandamus* to compel the coroner to administer it.

Fourteen years have all but elapsed since the dangers of kissing the book were first pointed out in THE LANCET.[1] Three years later the Oaths' Amendment Act was passed with its memorable fifth section and I blush to think how often I have asked you to reproduce it and how often you have done so. Articles and letters innumerable have appeared and yet the indifference displayed even by members of the profession is to me amazing. Repeatedly have I seen the Testament kissed by a witness well known to be suffering from constitutional syphilis, the same book being handled and kissed by a succession of witnesses. Other diseases might be named as liable to be transmitted from mouth to mouth, but this is quite unnecessary. The Scotch oath is not only free from any risk but it is more solemn, more impressive, and in every way preferable.

I am, Sirs, yours faithfully,

Liverpool, Sept. 25th, 1899. FRED. W. LOWNDES.

THE REGISTRATION OF THE DENTAL STUDENT AS A MEDICAL STUDENT.

To the Editors of THE LANCET.

SIRS,—With your permission I should like to draw the attention of dental students to an important regulation of the General Medical Council which will soon come into force. On and after Jan. 1st, 1900, a dental, or medical, student will be required before registration to produce a certificate of having passed the first-class College of Preceptors examination (or its equivalent), whereas until the above-named date the second-class certificate will suffice.

It is probable that a large number of men now registered as dental students only with the lesser certificate may subsequently desire to take medical qualifications and the question is, Will the first-class certificate be demanded by the Council or will the dental student registered before January, 1900, be exempted? I have interviewed the Registrar of the General Medical Council who has promised to lay the matter before the Education Committee at an early date, and he says they will probably meet in November. In order to avoid any difficulty arising I would advise all dental students registered with second-class certificates, who do not intend entering a medical school during this year, to take out a course of chemistry from October next at one of the recognised institutions throughout the kingdom and forthwith to become registered as medical students. Apart from the consideration of medical registration a course of chemistry is necessary for the dental licence and the instruction and examination in this subject are best taken during pupilage.

I am, Sirs, yours faithfully,

Hanover-square, W., Sept. 22nd, 1899. W. A. MAGGS.

"THE INFLUENCE OF HEREDITY UPON THE DRINK HABIT."

To the Editors of THE LANCET.

SIRS,—There appears to be some ambiguity in Dr. Sims Woodhead's account of what is meant by the hereditary transmission of alcoholism.[1] Dr. Woodhead strongly maintains "that a direct transmission of the taste for alcohol never occurs" and later he informs us that "the disease [alcoholism] was not transmitted, but only the weakly and unbalanced condition of the tissues, as a result of which, however, the patient was more susceptible to the main exciting cause of the disease; in a word, the predisposing cause might be transmitted, but the exciting causes never." To take the first statement first, what does it mean?

The appetite for alcohol appears to be deeply rooted in human nature, for even among abstaining peoples such as the Mahometans it seems necessary to fix a canon against the use of alcoholic liquors and to enforce observance by the threat of extreme pains and penalties. Again, the fact that aboriginal races take to alcohol with such avidity is surely an evidence that the appetite is not acquired but is there ready waiting for its appropriate satisfaction. Surely this appetite is inherited—is an inheritance, in fact, of the human race; and if it be urged that the appetite is acquired, but acquired very readily, I do not see that it alters the case much, for by an acquired taste we mean merely the cultivation of an appetite already possessed. Again, what does Dr. Woodhead mean by a transmitted condition of the tissues rendering a patient more susceptible to the main exciting cause of the disease? Is this greater susceptibility an index of the patient's diminished bottle power? If so, it is probably true that people of unstable nervous balance have a lessened tolerance of alcohol, but this is not what is usually meant by an alcoholic heredity. Then surely no one has ever been found to assert that the *exciting* cause of alcoholism is hereditary. What is usually meant by an alcoholic heredity, I take it, is an inherited inability to regulate the appetite for alcohol in accord with the needs of the individual. It may be paradoxical in speaking of aboriginal races to describe them as having an innate alcoholic heredity, but that such is the case is shown by Dr. Woodhead when he says, speaking of the Red Indians: "Give them alcohol and you take away the one virtue of their lives—self-control." Of course, you cannot take away what they never possessed. The aborigines' appetite for alcohol is like that of the inebriate in this—that it is beyond his control, and it is for this reason that the introduction of alcohol among these races spells such profound disaster. Sooner or later the races which cannot deal with alcohol as masters are bound to go by the board, and the remark applies equally to those who have acquired and lost this mastery as to those who by their insulation have hitherto been protected from the advent of the demon they have yet to chain.

It is in this connexion that Dr. Woodhead appears to miss the whole significance of the facts with which he is dealing. "Was it worth while," he asked, speaking of the possibility of acquiring an immunity against drunkenness—"was it worth while to sacrifice the work of the next few generations for a very problematical good in generations to come?" It is not a question of sacrificing the work of the next few generations, it is a question of the lines on which that work is to be directed. Dr. Archdall Reid, Dr. Berry Haycraft, and others have pointed out that the way of social salvation does not lie in combating alone the environmental enemies

[1] THE LANCET, Oct. 17th, 1885, p. 732.

[1] THE LANCET, July 29th, 1899, p. 259.

of our race. It has not been by extinguishing the poison of small-pox, but by immunising the race against its invasion that the scourge has been robbed of its terrors. The point is that immunity has been conferred and in the case of alcohol this immunity consists not in establishing an undue tolerance but in cultivating an efficient control of the appetite. It is an immunity not against alcohol that is wanted but against alcoholism. And that will be conferred, just as has been our immunity against zymotics, by elimination of those incapable of adjusting themselves to inevitable conditions. It has not been to the destruction of the materies morbi, but to the inherited immunity, partial or complete, which long centuries of evolution have effected that we owe our present satisfactory position in regard to zymotic diseases. And if any proof of this were required it would be found in the fact that London today is dangerous as a pestilential swamp to the races which have not undergone that evolution.

We cannot afford to create a population explosively susceptible to environmental conditions which can never permanently be abolished, and if the drunkard is not to perish and his seed with him it will be because our population yields none who are susceptible to loss of control of the alcoholic appetite. The true reformer, by whatever other adjective he may be designated, will work on lines which accord with the facts of the world's government, and though the facts be sometimes brutal his work will be none the less humane. With this, probably, Dr. Sims Woodhead will agree. I am, Sirs, yours faithfully,

Harlesden. WILLIAM BUTLER.

"THE CROOKE FUND."

To the Editors of THE LANCET.

SIRS,—In announcing our intention to close the Crooke Fund at an early date we would again remind the many friends of the late Dr. Crooke who were associated with him at Edinburgh, Guy's, Leeds, Birmingham, and elsewhere, of his misfortunes and early death, by which his widow and child are left in poverty. Whilst grateful to those who have already subscribed we shall be glad to add other names to the list. Since our previous notice the following further contributions have been received by the treasurer, Dr. Arthur Foxwell, 22, Newhall-street, Birmingham.

We are, Sirs, yours faithfully,
GILBERT BARLING,
87, Cornwall-street, Birmingham,
J. T. J. MORRISON,
3, Great Charles-street, Birmingham,
Honorary Secretaries of the Fund.

Birmingham, Sept. 26th, 1899.

	£	s.	d.		£	s.	d.
Mr. C. J. Symonds	3	3	0	Dr. W. S. Nason	1	1	0
Mr. George Heaton ...	2	2	0	Dr. S. H. Perry	1	1	0
Mr. E. R. Mansell	2	2	0	Mr. W. B. Russell	1	1	0
Mr. F. B. J. Baldwin ...	1	1	0	Dr. T. B. Young	1	1	0
Mr. H. C. Brown	1	1	0	Mr. Wooldridge	1	0	0
Mr. H. S. Chavasse	1	1	0	Mr. W. Downing	0	10	6
Dr. J. C. Griffiths	1	1	0	Mr. F. G. Gardner	0	10	6
Mr. Chas. Saint Johnston	1	1	0	Dr. W. J. McCardie ...	0	10	6
Mr. H. P. Motteram ...	1	1	0	Mr. Nugent Smyth ...	0	10	6

THE SCOPE OF THE MIDWIFE.

To the Editors of THE LANCET.

SIRS,—In a case of very severe ante-partum hæmorrhage can the midwife, after sending for medical aid, do anything more than general treatment. Some teach that trained midwives in accidental hæmorrhage should where it is possible plug the vagina. Some teach midwives in placenta prævia to separate the placenta from the os and some to plug the vagina in desperate cases. Is a midwife justified in doing any of the above? and is it advisable that she should even in a case where medical aid could not be obtained for some time? I am, Sirs, yours faithfully,

Sept. 24th, 1899. L.R.C.P. & S.

*** Our correspondent raises a question of considerable interest as to the treatment of complicated cases of labour by midwives—In ante-partum hæmorrhage is a midwife ever justified in adopting other than merely general treatment? The great majority of cases of hæmorrhage occurring before the birth of the child do not immediately endanger the patient's life, but a certain number of such cases are extremely urgent and danger to life is only to be avoided by prompt treatment. In complicated cases of labour where the help of a medical man can be obtained at short notice we do not think that a midwife should attempt anything but general treatment, but occasions must arise where the services of a medical man are not immediately available and where before such assistance can arrive the patient runs a considerable risk of losing her life. Under such circumstances a properly trained midwife should certainly know what to do and how to do it. In every case of complicated labour we cannot too clearly and strongly insist upon a medical man being called in, but where this cannot be, or has not been, done a midwife would certainly be justified in a grave case of hæmorrhage in doing whatever might be necessary to arrest the hæmorrhage and no one could or would blame her for doing so. That such interference on the part of midwives is regarded as at times necessary and right is shown by the fact that their training in the majority of hospitals includes the various measures that may have to be adopted for the arrest of hæmorrhage and similar conditions.—ED. L.

"ON HER MAJESTY'S SERVICE."

To the Editors of THE LANCET.

SIRS,—The War Office is now so handicapped in its medical department for want of medical officers that it is forced to employ a number of civil practitioners. Heretofore they were paid at the rate of £10 per annum for every 25 persons, which amounted to 8*s* per head per annum. This included men, women, and children. A number of men were also employed temporarily at fixed salaries. Evidently the authorities think that the above rate of payment is too high, for they have reduced it in some cases to half this amount; but the mode of reduction is more extraordinary still. For instead of saying that they will only pay half "contract rates" as quoted above they give full "contract rates" but only for half the number of people entitled to attendance. This brings the remuneration down to the lowest club rates considering that women and children are included. This is an example of what the profession brings on itself by competing with one another at such absurdly low rates, as at least one man has already accepted them. I am, Sirs, yours faithfully,

Sept. 23rd, 1899. L.R.C.P.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Petition from Poona for Suspension of Plague Regulations.—The Progress of the Plague.—Beri-beri in Burmah.—Death of One of the English Plague Sisters.

A LONG petition has been sent to the Government by the people of Poona. In it they point out that plague measures have been executed during the past three years without apparent success and while being thankful for the manner in which those measures have been carried out they complain of the inconvenience and trouble undergone and pray that the present plague measures may be stopped. They say: "It would indeed look strange that the petitioners should protest against measures intended by Government to save their lives; but they submit that they would have put up with the measures with great satisfaction in spite of all inconvenience and trouble had the measures been really useful in saving lives." That there is truth in the above statement can hardly be denied. Fresh outbreaks have occurred while the plague measures have been in full force and the successive outbreaks have pursued their apparent regular course without any evident restraining influence of the regulations enacted. The fearful outbreak now raging is given to illustrate the contention of the petitioners, but the chief point of the petition consists in the application to Government to build a sufficient number of huts outside the town so as to afford good shelter from sun, wind, and rain. They do not like the segregation and health camps because they

are not convenient or provided with facilities of living (good water-supply, market, police protection, &c.), and are subject to stringent rules. They ask that instead of spending large sums of money on the present plague regulations Government may be pleased to build dwellings for the poor. Such a petition appears to be unique and it is very probable that the adoption of such a policy would do much more ultimate good than the more or less faulty execution of any plague measures which might be adopted. The following figures with regard to Poona become interesting. From September, 1896, to May 31st, 1897, there were 2118 cases and 1564 deaths. From June 1st, 1897, to May 31st, 1898, there were 6561 cases and 4984 deaths. From June 1st, 1898, to May 31st, 1899, there were 1118 cases and 1017 deaths; but from June 1st to Sept. 2nd, 1899, there have been 9791 cases and 7618 deaths. So that during the present outbreak there have been more deaths than during all the three previous outbreaks put together. Fortunately, there are signs that this terrible visitation is lessening in severity, but the number of cases in the General Plague Hospital is, I believe, over 800. Distress is becoming acute among the native poor of the city.

The weekly returns for India show a further great increase of plague, the deaths having risen from 3921 to 4456 during the past week. There were no less than 1086 deaths in Poona alone—a rate of over 500 per 1000 per annum. Plague has also increased in Nasik, Ahmednagar, and Dharwar. In Hyderabad, Sind, there were 63 deaths and in Calcutta the number of deaths rose from 47 to 53. It is reported at Mysore that several porcupines have died at the Zoological Gardens from bubonic plague. There has recently been pointed out by Dr. Blaney of Bombay the curious coincidence of the almost entire absence of the usual annual visitation of caterpillars with the presence of plague during the past three years. His observations are apparently limited to Bombay, but he is content to note the fact without being able to offer any explanation for it.

Beri-beri seems to be on the increase in Burmah; certainly the number of cases treated in the hospital at Rangoon has increased rapidly. In 1898 nearly 50 per cent. of the cases in hospital died. The cases seem to occur chiefly among the immigrant coolies from Southern India. It is said that the "wet" form is the more common. Death is mainly due to heart failure and respiratory trouble. Convalescence is always prolonged. The etiology of this disease still remains obscure.

The Persian Government having declared Bushire free from plague the Venice Convention regulations have been withdrawn. It will be remembered that Captain Rainier, I.M.S., and an assistant were sent to Bushire by the Government of Bombay at the early part of the outbreak. Notwithstanding the difficulties with which the medical officer had to contend the disease has declared itself in very mild form and the clean bill of health now reported makes one important road to Europe safe against any further extensions of the epidemic.

Miss Murphy, a European nurse on plague duty, died on Sept. 5th at the Civil Hospital, Belgaum, from plague, after five days' illness. She was buried with military honours, the funeral being attended by the general and officers of the station.

Sept. 7th.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.—The annual meeting of this association was held recently in London, when the following officers were elected for the year 1899–1900: President: Mr. T. H. Openshaw. Vice-Presidents: Dr. W. C. Beatley and Dr. F. S. Palmer. Council: Dr. W. D. Arnison, Dr. W. M. Abbot Anderson, Dr. T. Beattie, Dr. J. Clay, Dr. F. W. Cock, Dr. C. C. Cripps, Dr. E. W. Diver, Dr. J. W. Hembrough, Dr. J. Thoresby Jones, Dr. W. G. Richardson, Dr. F. Spicer, and Dr. W. G. Walford. Honorary treasurer: Dr. S. W. Plummer. Honorary secretaries: Dr. H. B. Angus and Dr. R. H. Milson. After the meeting the members dined together at the Hotel Cecil, Mr. T. H. Openshaw, President, being in the chair. Amongst those present were the President of the Medical Society of London, Mr. Edmund Owen; the President of the Pathological Society of London, Dr. J. F. Payne; the President of the Clinical Society of London, Mr. John Langton; and Mr. Christopher Heath. A selection of vocal and instrumental music was given under the direction of Mr. Arthur E. Godfrey. A very pleasant evening was spent by the graduates and their friends.

THE ORGANISATION OF THE PROFESSION.

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 861.)

Inactivity of the Nottingham Medical Union.—The Necessity for Renewed Effort.—Hospital Abuse and the Club Grievance.—Strength in Numbers.

HAVING described the successful organisation of the members of the medical profession in the Bolton mining districts and in the towns of Wigan and Stockport I have as a contrast now to record an unfavourable reaction which has taken place at Nottingham. Not that the union formed in that town has fallen to pieces, but it is passing through a period of lethargy. It was, it may be remembered, on Jan. 1st, 1896, that the Nottingham Medico-Chirurgical Society held a meeting at which strong protests were made against the system of advertising medical men and that of touting organised by insurance companies and notably by the London and Manchester Industrial Assurance Company, Limited. The result of this discussion was the formation of a medical union and a large meeting for this purpose was held at the Masonic Hall on March 11th following. The speeches then delivered and the rules of the union formed on that day have been fully described in THE LANCET.[1] At that time considerable enthusiasm and energy were displayed. Nearly all the local practitioners joined the union. The advertising grievance was reduced and much was done to prevent medical practitioners from competing against each other by underbidding for contract work. Later the Nottingham Medical Union took up the question of hospital abuse. On the occasion of the Queen's Jubilee it was proposed to raise £50,000 so as to build an additional wing to the hospital. The profession was willing to aid in this movement on condition that the lay board of management would undertake to adopt measures to prevent hospital abuse. This request, however, was met unfavourably, and the medical men were challenged to prove that there really was any abuse.[2] The Medical Union therefore sent a circular to all the practitioners asking them to give details concerning cases of hospital abuse that had come within their knowledge during the last five years. A mass of conclusive evidence was thus collected. Still the board of management resisted and complained that the medical men were preventing the subscriptions from coming in. There were some hot discussions at the board meetings; the members of the medical staff of the hospital all belonged to the union and argued strongly in favour of abolishing the prevailing abuse, while the lay members of the board persisted in saying that the grievance had been exaggerated. At last the medical staff all subscribed to the extension and withdrew their opposition on the condition that when the new wards were constructed a system of registering patients should be introduced. This was a sort of honourable understanding and no written statement or agreement was exchanged. Here undoubtedly a mistake was committed. Even when dealing with a single individual it is always more prudent to have a written agreement, but this becomes absolutely indispensable when negotiating with a body of men. Memories fail, impressions differ, and after a few days, certainly after a few months or one or two years, it will be found that each person concerned will have a different version to give of what occurred. Then when a number of persons are discussing a question some are more attentive than others or have more retentive memories and thus in the course of time opinions will radically differ as to what really occurred. Therefore it is always necessary to write down, then and there, the exact nature of the conclusions adopted. This was not done and this neglect will probably lead to conflict and confusion in the near future.

Again, opposition was the only weapon that the medical profession possessed. It was an unusual opportunity. Money was wanted. The medical men could do a great deal to prevent this money from coming in. Once the money

[1] See "Battle of the Clubs," THE LANCET, March 21st, 1896, pp. 805-808.

[2] THE LANCET, June 5th, 1897, p. 1573.

had been obtained they would have lost their best weapon. Perhaps it is fortunate under these circumstances that though the medical men withdrew their opposition without having obtained a signed agreement, the Jubilee Fund did not bring in what was wanted. Further, a large portion of the money obtained was given by Mr. Hooley and there is now much anxiety felt lest this money should have to be handed over to Mr. Hooley's creditors. Further appeals for subscriptions and donations will have to be made. The board of management promised that the whole question of hospital abuse should be taken in hand; but this was only a verbal promise, and at best the fact of taking a problem in hand does not prove that the difficulties will be satisfactorily settled. On the other hand, the Nottingham Medical Union is so influential and numerous a body that if its members would set themselves earnestly to work they could doubtless devise a scheme by which they might very materially help to raise the balance of the funds still required. This is their opportunity. The Medical Union should approach the hospital board with an offer of help in one hand and the written terms of a definite agreement to impose measures against hospital abuse in the other hand. Thus the opportunity which was partially lost on the first occasion might be renewed. Unfortunately, as already stated, the Nottingham Medical Union has fallen into a somewhat somnolent condition. No meetings having been held an impression prevails that there is nothing to do and that the members must wait till the General Medical Council declares that it is, professionally speaking, infamous conduct to tout for patients, &c. This is a vicious circle and in any case it has nothing to do with the question of hospital abuse. The General Medical Council can best be stirred to action by a strong movement on the part of the members of the profession, but if the one waits for the other the waiting may continue till Doomsday.

In one respect the Nottingham Medical Union has been successful. On Oct. 7th, 1896, all the members signed an agreement worded as follows: "I hereby undertake, after Jan. 1st, 1897, not to enter into any new club or contract engagement for less than 4*s.* per year per member." This agreement has been faithfully observed, but there now arises a complication. Recent legislation with regard to the friendly societies has legalised the admission of juvenile members to adult lodges and some of the Nottingham medical practitioners have been requested to accept juvenile members for less than the 4*s.* a year. This would be opposed to the agreement just quoted and it is probable that some misapprehensions and difficulties may result. Here, then, we have another reason for the Union to renew its meetings, as this matter needs careful investigation. Then, reports have been made to the council of the Medical Union concerning flagrant instances in which the patients of some of its members have been canvassed by the agents of one of the medical aid associations and the promises that were made by these insurance companies to cease this practice have evidently not been kept. A memorial was drawn up by the Medical Union petitioning the General Medical Council and the Colleges not to give their countenance to medical aid associations which employ touting or in which a portion of the medical fees goes to swell the profits of the society. This is all very well but it does not suffice. A more active policy is needed and for this the members of the profession must be thoroughly unanimous, but how can they be unanimous unless they meet frequently and thoroughly discuss the matter?

The annual report of the Nottingham Medical Union for 1898 states: "You will have seen that a few months ago there was a conference in London between representatives of the British Medical Association and some friendly societies. It was very amicable and the representatives of the friendly societies seemed anxious to look at all sides of the question and to consider a revision of scales. By quiet work it will gradually be made plain that the men who claim the sympathy of the public in their struggle for a 'living wage' cannot also claim it for 'sweating' the doctors. The club rates must be revised sooner or later."

Doubtless there is much to be said in favour of "quiet work," but the work must not be so quiet as to allow the workers to drop off to sleep; and when no meetings are held and the annual meeting is overdue it may well be inquired whether the Nottingham Medical Union is going to sleep. At the last annual meeting only four members of the council of the Union were present. The members now manifest very little interest in the proceedings. Last year there were only three council meetings and six committee meetings. The fact is that an organisation of this description depends for its vitality on two or three active and enthusiastic leaders. Dr. W. B. Ransom, who was the first president of the Union, was most active, and it is very unfortunate that he thought himself called upon to resign, presumably so that others might in their turn occupy his post. He was succeeded by Dr. Handford, who, in consequence of the great amount of work which he had to do in regard to the question of water-supply and the evidence he had to prepare for the House of Commons inquiry into the matter, was also obliged to resign. Mr. Geraty is now the president, and as he fully recognises that the Union is not flourishing and is not holding the meetings that should be convoked it is to be hoped that he will take some energetic steps to stir up the members. In this the honorary secretaries, Mr. J. H. Cox and Dr. Peskett, should give efficient help. But there seems to be a lack of active leaders at Nottingham. The profession is well disposed; all its members are willing enough to act but not to lead. There is a great difficulty in awakening interest. Formerly the meetings were well attended because there were differences of opinion which led to exciting and interesting debates. Now matters are altogether too calm and quiet, so the attendances have fallen off disastrously. And yet, as shown above, the grievances remain and fresh grievances are threatening. Then there is the question of the Nottingham Provident Medical Aid Society. This institution was founded by a Nottingham cloth merchant, Mr. Martin, so far back as 1859, solely from philanthropic motives. No charge was made for management and all the money subscribed by the members was divided among the medical men who attended the patients. After Mr. Martin's death 10 per cent. was deducted from the subscriptions to cover working expenses. There were some 2000 subscribers. The medical men examine all applicants for membership and they can refuse those whom they think are not able to pay proper fees. When the Nottingham Medical Union was first founded the question was raised as to whether the Union should establish a medical provident and public service of its own or support this institution. The latter course was adopted and, further, it was determined to establish a branch in another part of the town. This attempt proved a complete failure. The Medical Union had no collector and, of course, did not advertise and yet it was competing against insurance companies who advertised, who employed active collectors, who did not scruple to tout, and who never sought to impose any sort of wage-limit. Besides, it was an attempt to compromise with an old and out-of-date institution and this also was a source of weakness. This failure has had a discouraging effect. Also there has been very little grumbling—very few complaints have been made of late by individual members. This is also wrong, for grievances nevertheless exist, and if every case that occurs were promptly reported to the secretaries they would soon have ample reason for convoking meetings and opening the discussions. It is of no use for members of a union to sit still and wait for others to take every initiative and to do all the work. Each member should strive to do his utmost, just as if he were the sole person responsible. Some four years or so ago Nottingham was in the vanguard of the movement and it is most regrettable that the Medical Union of this town seems to have forgotten the maxim—*Noblesse oblige*. Even now, so far as membership is concerned, it is one of the best unions in the country. Out of about 100 medical men practising in the town 79 are members of the Union and there are also 43 members from the outlying districts. With 122 members thus enrolled there is no pending question that could not be taken in hand. For instance, the management board of the hospital has been asked to appoint an inspector for at least a month to inquire as to the financial position of some of the patients, but no reply can be obtained. Why should not this matter be pressed forward? And what about the "Sick and Annual Clubs" that used to be held in public houses? Is the union quite sure that they are all abolished? If not, can it rest satisfied that medical men should be employed as decoy-ducks for the sale of drink? There can be no doubt that there remains much work to be done; all that is wanting is the spirit of initiative and the energy to take it in hand.

THE MALARIA EXPEDITION TO WEST AFRICA.

(FROM A CORRESPONDENT.)

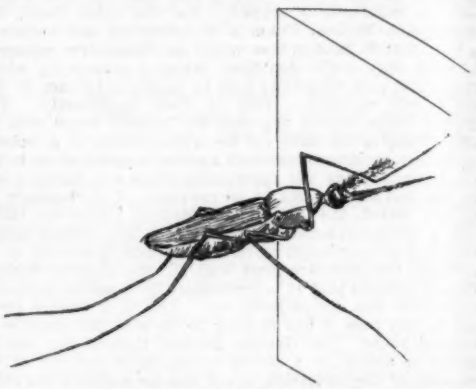
THE work of the expedition during the past week has been almost entirely confined to searching out the breeding places of anopheles. In general, it may be said that culex breeds in the various tubs, pots, and cans left about the neighbourhood of the houses, while anopheles prefers small puddles of water left after heavy rains and occurring along the course of small streams which take off surface water. There are, however, occasionally exceptions. Anopheles has been found once breeding in a tub, while culex several times has been noticed in puddles.

Anopheles larvæ are easily distinguishable from those of culex. The former have no breathing tubes, float flat on the surface of the water (culex float with head downward and breathing tube at the surface), never reach the large size of some culex larvæ, and when disturbed wriggle about flat, or almost so, starting off with a kind of back-jerk; culex dart quickly, head downward. Anopheles larvæ under natural conditions reach the pupa stage in three or four days; the latter stage lasts only about 24 hours. But in the laboratory the whole process may take over a week; they feed on a green alga which grows luxuriantly here in puddles which remain a few days. Particles of this weed have been recognised in their stomachs after dissection.

Numerous breeding places have been found in various parts of the town. In what can, perhaps, be called the European quarter—although the majority of the people there are natives—one puddle containing several larvæ was found just in front of the local post-office. This has now been emptied out several times. Further, in the Kissy village (previously mentioned) puddles swarming with larvæ have also been found, thus accounting for the anopheles found in the neighbourhood. In Banbury town—the east portion of Freetown itself—were numerous puddles and they were also abundant in the west part of the town—Krootown and Soldiertown. Several efforts have been made to discover breeding places at Wilberforce. The view that the mosquitoes found there had remained about the barracks since the beginning of the rains must now be rejected. It will be remembered that at first they were numerous, then after numbers had been caught they diminished so much that an odd one here and there could be found with difficulty. During the week, however, evidently a new hatch occurred, for they again became fairly numerous, but breeding places have not yet been found. Wilberforce is on a hill; water runs away quickly and only very small puddles can be formed among the rocks after rain. This week there has been two days' complete sunshine and puddles have consequently all disappeared—hence probably the difficulty. Most of the flat marshy country on all sides has been investigated, but as no trace of breeding ground was found it must be inferred that these sites are not used by anopheles. The puddles themselves are interesting and as breeding places confirm Ross's statements. As mentioned before, Freetown is built on the slope of a hill which runs round the back of the bay on which Freetown stands. The streets running parallel to the direction of the hill range are flat and at the sides of these just in front of the houses puddles form after the rain and persist—through the wretched condition of the surface drainage system—several days even in the dry season. They are generally partially overgrown with the green weed and form excellent places for the breeding of anopheles. In almost every such street several pools containing larvæ can be found.

Other puddles are those formed at the small beginning of streams which run straight into the sea and carry off surface water and are placed along the sides of streets. In places where the stream is small a puddle occurs through which the water flows very slowly and the water is all but stagnant after rain; here the larvæ are found in smaller numbers, the majority having been washed away by the stronger stream during the rainfall. But the larvæ seem to embed themselves in the green algous weed and thus remain more or less confined to the same puddle. Isolated puddles also occur nearer the sea where the current is stronger. Here the water lies in a hole in the course of the stream and is left to dry up gradually during dry weather, but can easily last sufficient time for a hatch of mosquitoes to occur. Such a pool was the one found near the post-office. It has often been noticed that a puddle containing larvæ may be completely dried up during the course of a single day—the larvæ dying of course; but after a few hours' rain the puddle is again full, and a day or two afterwards again contains very young larvæ. So probably a mosquito will return and utilise the same puddle over and over again.

For the benefit of your readers in general, but more especially for those in malarious countries, a drawing of the mosquito of the genus anopheles is given. The fly is at rest



Female anopheles after feeding. Three legs are shown on the right side and one only on the left. × 6.

against a perpendicular surface and takes a characteristic position with the line of its body at an angle of from about 60° to 75° to the surface. All kinds of culex rest parallel to the surface or nearly so.

Freetown, Sept. 8th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Medical School.

THE distribution of prizes under the teaching of the Clinical Board will take place on Oct. 13th in the lecture theatre of the General Hospital. Professor Chiene of Edinburgh will give an address on the occasion. Many of his former pupils and those who have received their medical education in Edinburgh will welcome his presence and look forward with interest to his matured observations.

Carbolic Acid Poisoning.

The frequency of cases of poisoning by carbolic acid and the readiness with which it is obtained seem to call for some legislative interference. An instance in point occurred on Sept. 22nd, in which a woman, aged 44 years, drank a quantity of carbolic acid from a bottle which she had concealed, death occurring soon afterwards. At the inquest it was shown by a druggist's assistant that the deceased had purchased two bottles of carbolic acid which she said she wanted for a friend. This witness stated that it was not necessary to have a witness to sign for the purchase of carbolic acid, which, though a poison, was not scheduled under the Act. The jury expressed their opinion that it should be scheduled along with other poisons. This opinion should certainly be endorsed by the authorities and some legal precautions taken towards a more effective control in the selling of a substance now so easily obtained. In the case of those determined to commit suicide doubtless no restrictions will suffice, but they may be surrounded with more care than at present exists.

The Revision Court and Medical Relief.

At the Revision Court lately held in Birmingham a point was raised as to claims by persons who had attended the workhouse infirmary and who were stated by the overseers to have been in receipt of parochial relief. The revising barrister said that he noticed the relieving officer in his

returns made no distinction between those receiving parochial relief and those receiving medical relief. The law was perfectly clear that medical relief entailed no disqualification whatever. Only persons who received the ordinary parochial relief were disqualified. In the Birmingham Union there is one entrance to the workhouse and a separate one to the infirmary; it was suggested that confusion had arisen from an erroneous impression that a person going through the infirmary entrance was in receipt of alms in the ordinary sense and not only of medical relief. This is a distinction to be borne in mind in the future—namely, that the receipt of medical relief does not pauperise the individual.

The Inebriates Act.

It has been stated in THE LANCET that the General Purposes Committee of the City Council were in favour of arrangements being made for the reception of a number of patients in the home at Brentry near Bristol. Since the committee arrived at this decision the government of the home has undergone some change and fresh terms have been submitted. It is understood that an undertaking is required from the council that they will subscribe an annual sum towards the cost of the institution for a period of 25 years. The matter is therefore still under further consideration.

Poor-law Guardians' Troubles.

The Workhouse Management Committee have instructed the master to supply the inmates with bread *ad libitum* for a month instead of weighing it out to them as at present and to report at the end of that period. It was stated that they wished to satisfy the inmates and to minimise the waste of bread, which at present was enormous. The guardians at the same meeting, held on Sept. 20th, were much perturbed at the amount of the bill of the vaccination officer which during the half-year at the minimum rate reached nearly £600, in addition to which there were some fees over which the guardians had no control. It was proposed that the Local Government Board should again be asked to reduce the minimum fee. The committee had also received a lawyer's bill for £24 for costs and counsel's fees in recent prosecutions by the vaccination officer which had been undertaken without first consulting the committee. The guardians have fallen on troubled times as regards their duties, the question of relief of the aged poor being also a problem before them which involves some intricate details in which the ratepayers are involved to no inconsiderable extent.

Sept. 26th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Drainage of St. Fillans.

AT a meeting of the Central District Committee of Perth County Council on Sept. 19th the chief sanitary inspector submitted a report on the drainage of St. Fillans. The sewage of the village, which consists principally of self-contained and semi-detached villas, is discharged into 29 cesspools, the overflow of which in almost every case runs into either Loch Earn or the river Earn. In some instances the sewage runs directly into the river with no intervening cesspool. At a short distance below the village the Earn river water is used by certain people for drinking and household purposes. The inspector advises that the inhabitants of St. Fillans should lodge a requisition with the committee for the formation of a special drainage district which would include the adoption of an economical system of purification of sewage. The matter was remitted to the Public Health Committee.

The John Usher Institute of Public Health.

The plans for the John Usher Institute of Public Health have been passed in the Edinburgh Dean of Guild Court. The money for the building, amounting to £20,000, was given some time ago by Sir John Usher of Norton to the University Court of the University of Edinburgh. The site for the building is in Sir George Warrender's property on the south side of Warrender Park-road. The ground available at the medical school had been found to be too confined, hence the necessity for separating the institute from the other buildings of the medical school. In the site fixed on in Warrender Park-road there will be ample light from the north, and a piece of ground measuring 250 feet by 110 feet has been feued for the building. Part of this ground will be reserved for extensions. On the east side a continuation of Spottiswoode-street to the south will run along the building and a new street will bound the ground on the west. The front of the building will stand back at some distance from the street. The exterior has been designed in a phase of classic Renaissance, taking the form of two end blocks connected by a recessed central part. The building will consist of three storeys in which will be provided a museum, three research rooms, large chemical and bacteriological laboratories, balance, optical, and dark rooms, water and gas analysis rooms, three scientific work rooms, observation, disinfection, and incubating rooms, a reading room, an extensive lecture theatre, the professor's private laboratory and retiring room, a class room for senior students, a caretaker's house of three apartments, as well as basement accommodation for heating, incinerator, and water storage tank. There will be extract ventilation by means of fans and the building will be heated by hot water. The flooring will be fire-proof.

The late Mr. W. Bowman Macleod.

By the death of Mr. W. Bowman Macleod, L.D.S., the dental profession in Edinburgh has lost one of its most distinguished members. Mr. Macleod began the practice of dentistry in the "sixties," and built up for himself an extensive practice. He was one of the first to obtain the degree of licentiate in dental surgery, having taken a prominent part in the agitation which culminated in the passing of the Dental Act of 1878. He was one of the first in Scotland to introduce the use of nitrous oxide gas into dental practice. To him as dean of the Edinburgh Dental Hospital was due in large part the credit of the position which that hospital now holds as a school of dentistry. He has at various times held the posts of President of the Odontological Society and of the Odonto-Chirurgical Society, while he was also elected President of the British Dental Association when it met in Edinburgh in 1895. At the time of his death a movement was on foot among his professional brethren to present him with his portrait.

Edinburgh Royal Infirmary.

At the weekly meeting of the managers of the Edinburgh Royal Infirmary before entering on the business the Lord Provost as chairman spoke of the loss which the infirmary had sustained by the death of Surgeon-Major-General Lithgow. He moved that their deep sense of this loss be recorded in their minutes and that a copy of the minute be sent to Surgeon-Major-General Lithgow's widow and family. In seconding the motion the Rev. Rowland Ellis spoke of the thorough and efficient way in which Surgeon-Major-General Lithgow had thrown himself into his work. Others who knew their deceased friend well had said that the outstanding note in his life was that he was thoroughly just in his dealings with all with whom he came in contact and at the same time that he was kind and courteous. The motion was adopted unanimously.—Among subsequent business was an intimation of a legacy of £10,000 (less duty) by the late Mr. Walter Whyte Pollok of Rhindmuir.—A pottery firm in Portobello, in sending their workers' contribution for the year to the funds of the infirmary, stated that for the last two years they had adopted the system of deducting 4*d.* a month from men earning 20*s.* a week and over, 3*d.* a month from those earning from 14*s.* to 20*s.* a week, 2*d.* a month from those earning between 10*s.* and 14*s.*, and from all women and boys 1*d.* per month. There had been no grumbling by the workers regarding the adoption of this system.

Proposed New Hospital at Langholm.

It has been arranged to erect a hospital for infectious diseases for the burgh and district of Langholm at a cost of £2180. Three-quarters of the expense will fall on the district and one quarter on the burgh. The governing body will consist of eight members, five from the district and three from the burgh.

University of Glasgow.

It is officially intimated that Viscount Cromer, the Unionist candidate for the Lord Rectorship, owing to certain considerations affecting his position in the Diplomatic Service, has felt obliged to withdraw from a contest which involves political issues. At the same time it is announced that Lord Kelvin has consented to accept nomination. The

Liberal candidate is Lord Rosebery, and though all will hope in the near future to see so distinguished a Scotsman in the Rectorial chair, Lord Kelvin's long and distinguished connexion with the University suggests that his election should be marked by the grace of a unanimous choice.—There will be widespread regret at the announcement made on Sept. 26th of the death of Mr. Lachlan Macpherson who has held the position of bedellus of the University since 1853. During this long tenure of office Mr. Macpherson performed the public duties of his office with impressive stateliness and proved himself in every way an efficient University officer. He has seen the succession of four chancellors, four principals, and six lord rectors, and more than 200 professors. Towards the students he always showed much tact and great kindliness of heart. His popularity and the respect entertained for him were unbounded and his death will be a cause of regret to thousands of Glasgow men now distributed over all parts of the world.

Glasgow Lecture Association.

In the programme of the association for the ensuing session is the announcement that Professor McKendrick has consented to deliver during the Christmas holidays a special science lecture to school-children after the manner of the well-known and popular Royal Institution Christmas lectures which, as it happens, Professor McKendrick himself delivered two or three years ago.

Further Bequests to Glasgow Infirmaries.

The agents for the trustees of the late Mr. Alexander Boyack have intimated that the residue of the deceased's estate has been bequeathed in equal portions to the Glasgow Royal Infirmary and the Glasgow Western Infirmary. It is understood that the sum thus given to each of the infirmaries will be about £13,500.

Sept. 26th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Proposals for the Sanitary Improvement of Dublin.

THE prevalence of typhoid fever and measles continues to attract much attention and the extent of the interest which has been aroused is shown by the correspondence and the editorial articles in the newspapers. Dr. Charles F. Moore, in a long letter to the *Irish Times* of Sept. 25th, asks: "Why have the warnings which so many others, as well as I, have so often given as to the state of the dairies, of the legion of slaughter-houses, and of the manure yards in Dublin not borne fruit? ..... Is it that the attempted suburban township amalgamation question has so occupied the civic mind that the warnings of Royal Commissions, of the corporation medical officer of health, and of a host of other authorities ..... are all to no purpose? ..... I have before advocated removal of dairy yards out of the city and in the meantime the very efficient inspection of the cattle and of the yards, the abolition of all collections of manure in the city, the construction of public abattoirs, one on the North Lots and one on the South Side—say, on the Pigeonhouse-road land—with thorough prevention of pollution of the land and river, by utilisation of all refuse matter." Dr. Moore's remarks are well timed and will commend themselves to all sanitarians. The proverb, "Prevention is better than cure," is especially applicable to infectious disease. A writer in the *Irish Times* of Sept. 26th, discussing the question of a hospital for infectious diseases for the city and county of Dublin, states that to do the work that the Cork-street Fever Hospital and the Hardwicke Hospital do at present would require a hospital of 400 beds with its accompanying convalescent homes.

Cork-street Fever Hospital, Dublin.

In connexion with the difficulty of providing accommodation for infectious diseases in Dublin a very important letter has just appeared from the pen of Mr. Marcus Goodbody, one of the members of the committee of Cork-street Hospital, in which the suggestion is made that instead of spending a large sum of money on a new hospital for infectious diseases the Corporation and the unions should enter into a contract with the Cork-street and Hardwicke Hospitals for the supply of funds necessary to meet the extra demands for the urgent needs of the city.

Poor-law Medical Officers and their Holidays.

The solicitor to the Belfast Board of Guardians has advised that the board were bound to pay four weeks' salary to the gentlemen who had acted as locum-tenents for the medical dispensary officers on vacation. It has been decided by the guardians to draw up a memorial protesting against this practice and to present it to the Local Government Board.

Fees for Medical Men.

At the meeting of the Armagh Board of Guardians on Sept. 19th the master reported that during the week he had received a requisition from the medical officer of the workhouse requiring him to procure the services of a medical man for the purpose of assisting at an amputation case. He called upon all the medical men in Armagh and none of them would act at a less fee than three guineas, so he employed one at this sum. As usual the guardians protested strongly, but the chairman said wisely that the master was bound to procure a medical man and the amount of the fee was accordingly sanctioned.

The Forster Green Hospital for Consumption.

Mr. John Jaffe of Nice (a brother of the Lord Mayor of Belfast) has presented a handsome "shelter" to be used by patients at the Forster Green Hospital for Consumption, Newtownbreda, Belfast.

The Belfast Ambulance System.

The Belfast ambulance system, which is worked by the fire brigade, is one of the institutions of which all the citizens are proud. During the year ending June 30th, 1899, 1803 calls for the ambulance were received and the time occupied in attending to the calls by the ambulance was 859 hours 22 minutes, giving an average of 28½ minutes per journey from the receipt of the call until the carriage returned to its station. The distance, however, was 4448 miles, or an average of two and a half miles per single journey. Another new ambulance waggon is about to be presented to the city corporation and will be ready for active service in November. The number of calls received between the hours of 6 A.M. and 6 P.M. was 1034, and between the hours of 6 P.M and 6 A.M. 769 calls were received. The value of an institution like this in a city where accidents are of such frequent occurrence is inestimable.

Lunatics in the Belfast Workhouse.

At an inquest on the body of a woman who died in the lunatic department of the Belfast Workhouse the jury added a rider to the verdict reiterating the verdicts of Belfast jurors repeatedly found during the past five years that the only solution of the workhouse lunatic problem is the absolute removal of all the insane from workhouses to properly equipped asylums. At a meeting of the Belfast District Lunatic Asylum Committee on Sept. 25th a resolution was passed stating that they have at present no accommodation for the lunatics now in the workhouse and that they cannot provide for them until an additional asylum has been built, but they are prepared to recommend the City Council to provide the same as soon as possible.

Suicide of a Criminal Lunatic.

At an inquest concluded on Sept. 25th on a patient who committed suicide by strangulation at the District Asylum, Belfast, some curious points came out in evidence. It would appear that the man about two years ago committed a murder in county Antrim. He was found guilty at the assizes but, it having been ascertained that he was a lunatic, he was sent to the Criminal Lunatic Asylum, Dundrum, county Dublin. On August 3rd he was transferred to the Belfast District Asylum, and Dr. Graham, the medical superintendent, brought the matter before the governors, who passed a resolution, which was forwarded to the Lord Lieutenant, protesting against the transference of such a patient from the Central Criminal Asylum, believing that district asylums are not the proper place for the custody and treatment of such patients. He had only been one year and seven months in Dundrum Criminal Asylum. The reply from the Lord Lieutenant was that it was thought that the course taken would be for the benefit of the deceased. The jury in their verdict considered that persons such as the deceased should not be transferred to the Belfast or any other district asylum from a criminal lunatic asylum.

The Donegal Guardians and the Local Government Board.

The Local Government Board having written to the Donegal Board of Guardians saying that they would

insist upon seeing that their wishes as to medical dispensary officers being entitled to four weeks' annual vacation and as to their locum-tenents being paid such salary or remuneration as the Local Government Board may approve or direct were carried out, a most extraordinary resolution was passed on Sept. 23rd in which the Donegal Board of Guardians adhered to their views and directed their solicitor to take the opinion of The MacDermot, Q.C., on the legality or otherwise of the action of the Local Government Board. It is probable in the end that the Local Government Board will be obliged to send down a sealed order dissolving this recalcitrant board of guardians and appointing paid officers to administer the affairs of the district involved.

Sept. 27th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Can a Medical Man be the Legatee of his Wife?

THE Tribunal of Dax has just had to deal with a question which is of the very highest importance to the medical profession. By French law legacies made to the confessor or the medical man who attends the deceased in his last illness are invalid. This regulation has often been contested, especially in cases where the medical attendant was an intimate friend or relative of the deceased. The courts have often had to decide actions brought by other heirs in cases where a medical heir had advised the deceased and numerous decisions have been given as to what exactly was meant by "last illness" and what by "attention." A case is on record where a medical man came at a moment's notice to see a dying parent who was being attended by a colleague, but as he had the imprudence to make suggestions for a last effort of treatment he saw his own inheritance contested by would-be heirs through a piece of sharp practice under the above-mentioned law. It is quite evident that the only object the legislature had in view was to obviate the chance of the dying man being "got at" by those in whom he should put his last hope of spiritual or corporal safety—namely, his confessor and his medical man, especially if the will should chance to be made at a late hour when he would probably be very much under the influence of these two persons. But it would evidently be an injustice to prevent a near relative who has been marked out for some time previously as the heir, the will having been drawn up a long time before the death of the testator, to be obliged to abstain from giving that care which is demanded by humanity and affection just because he happens to be a medical man under pain of losing his rightful inheritance. The question is still more complex in those cases where the deceased was the wife of a medical man. In the case submitted to the Tribunal of Dax the matter was complicated by the will being contested on the ground of the wife having died 14 months after marriage from phthisis and the would-be heirs affirmed that the husband knew she was phthisical, as had been her mother, before he married her. The court went carefully into the reasons which had led to the passing of the law and decided that it was meant only to apply to such cases as those in which the medical man was a stranger to the deceased—i.e., not a relative; that a will made in favour of a husband by a wife was dictated by affection; that such a will was not to be declared void unless it could be shown to the satisfaction of the judge that the medical man had used fraudulent means to obtain a will in his favour by means of marriage; that an obviously mercenary marriage was not against the law; and that in the present case the objectors to the will had brought no evidence to show that the medical man in question had exercised any undue pressure upon the deceased during her last moments.

The Medical Staff of the Bureaux de Bienfaisance.

The Society of Medical Men attached to the Bureaux de Bienfaisance have adopted, on the motion of M. Dorison, the following scheme of demands as to the working of the Assistance Publique. 1. Out-patient consultations at the hospitals shall be done away with. 2. The question of admitting patients to the hospitals or not shall be decided by the medical men attached to the Bureaux de Bienfaisance. 3. A sufficiently large out-patient staff shall be provided to enable the senior medical staff to do their work thoroughly. 4. Every drug in the Codex as well as milk shall be included in the Pharmacopœia (*Nomenclature*) of the Bureaux de Bienfaisance and the medical staff shall be authorised to prescribe such in quantities large enough to prevent loss of time on behalf of the patients by repeated visits. Baths shall also be able to be ordered in consultation in cases of those suffering from skin diseases. 5. Dispensaries in connexion with the Bureaux de Bienfaisance shall be established for the treatment of diseases of the skin, the eye, the ear, the nose, and the teeth, and shall be under the care of specialists in their respective departments. The medical men in charge of ordinary dispensaries shall be allowed to send to these specialists such patients as may be suffering from any of the above-mentioned maladies, whether for treatment or to obtain such certificates as the ordinary medical man is not able to give. 6. The annual allowance to medical men for dispensary consultations shall be increased.

A Medical "Roman à Scandale."

Your readers will not have forgotten the exciting events which occurred some three years ago at the Faculty of Medicine in the matter of Dr. Heim. This young professor was accused of having stolen a number of instruments from the Natural History Laboratory, of which he was the head. The loss was first discovered by Professor Blanchard when he took over the charge of the Natural History Department. After a long inquiry Dr. Heim was convicted by the Academic Council. On appeal to the Superior Council of Public Instruction the charge of theft was quashed but Dr. Heim was sentenced to two years' suspension for lax administration of his laboratory. The whole case was the cause of bitter anger against Professor Blanchard among the friends of Dr. Heim, who accused Professor Blanchard of using undue influence against Dr. Heim out of spite and envy. The students, too, made such a noise at Professor Blanchard's lectures that the lectures had to be stopped. All these facts were in a fair way to be forgotten when the publication of a novel revived all the old animosities. This book, called "Monsieur le Professeur," is by a little-known writer, M. Georges Maldague. It sets out under slightly disguised names the whole story of Dr. Heim who is held up as the persecuted victim. Professor Blanchard is held up as the villain, all the details of his private life being attacked even to the circumstances of his marriage. The book of course has made a great scandal in the medical world. Although it has appeared just as Dr. Heim has finished his time of suspension and on the eve of his re-commencing his course of lectures, so far from producing any feeling in his favour it has been the cause of a reverse opinion.

Sept. 26th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

The Nile Flood.

DURING the dead summer season when English brains are refreshing themselves in Europe and Egyptian hands are doing even less work than in the winter there is one moving force of all importance to this country. The Nile, reddish brown, like breakfast coffee with very little milk in it, is now bringing to us every minute the rich fertilising mud which is all important for the crops.[1] Part of it proceeds from the Atbara river the bed and banks of which are charged with volcanic detritus and the rest of it comes from the Blue Nile, which has its sources in the mountains of Abyssinia. One of the points which makes the Nile so wonderful is that for 1700 miles it flows grandly on without aid or accomplice. North of the Atbara, till it empties into the Mediterranean all that the irrigating engineers have left of it, it receives no tributary. For the eight months of the year when the river is not in flood the White Nile is the principal factor in its volume, but the Atbara flood begins in July and reaches its maximum about August 20th. We therefore now

[1] "Thus do they, sir. They take the flow o' the Nile
By certain scales i' the pyramid; they know
By the height, the lowness, or the mean, if dearth
Or foizon follow. The higher Nilus swells
The more it promises; as it ebbs, the seedsman
Upon the slime and ooze scatters his grain,
And shortly comes to harvest."
—*Antony and Cleopatra*, Act ii., Scene 7.

know all the worse that this year has in store for us. The Government is keenly interested in the question of this year's low Nile, for half the revenue of the country—about £5,000,000 sterling—is paid by the land and date taxes of 1,000,000 of the inhabitants. Now from time immemorial justice has decreed that when there has not been enough water provided to flood the land the unwatered parts called Sharaky need pay little or no taxes. During the last 160 years, which is the furthest point to which statistics go, there have now been three dangerously low Nile floods. The worse was in 1877, before the days of the British rule, and then the taxes had to be remitted to the extent of £1,110,000, and what with that and the extravagances of the Khedive Ismail finances were in a very bad way indeed. Then, again, in 1888, within the memory of us all, £350,000 had to be forgiven to the landowners, and the English irrigation officials, confronted with the problem for the first time, studied with all their might to construct new canals to carry water during future low Niles to the raised lands distant from the river. The present year profits by their labours, for though this year's Nile is much worse than that of 1888 it is calculated that only £100,000 will be lost in taxation. Again, this summer, for the first time in history, the Barrage is holding up some of the flood water, so that the canals of Lower Egypt are profiting. There is an extra low Nile, therefore let every drop of water be economised. This sounds very simple, but it is beyond the intelligence of the native engineers and thus everything has to be supervised by English inspectors. The peasantry have been solemnly warned not to trust to anything but their own exertions. No extra water will now be forthcoming. It is possible this year to speak with authority because reports are regularly telegraphed from the Sennaar gauge, and these show the interesting fact that any given rise there takes about 20 days to reach Cairo. To complete the record many more Nilometers are wanted both above and below Khartoum so as to be able to prophesy three months beforehand what kind of flood it is going to be. This will be done some day and will obviously be of untold benefit to cultivators. What would the British farmer give to be told beforehand exactly what quantity of rain his crops would enjoy during any one month? In a good year the Assuan Nilometer registers from 16 to 17 pics, but this year it has never reached 14 pics. This means that the flood is four or five feet lower than what is wanted. The Assuan gauge is always taken in preference to the Cairo one because it is not modified artificially by the Barrage below Cairo. Sanitary matters are not likely to be affected by the low Nile. There will be plenty of water for washing, drinking, and draining. So far as regards Cairo itself, a low Nile is an advantage, because there is less infiltration water in the low-lying native parts of the city and the surface-level of the native cesspools, which are in free communication with the sub-soil water, is appreciably lower and therefore further from the human race. The summer weather is naturally modified by the restricted irrigation, so that it is less damp but hotter than usual.

The Plague.

There are apparently no cases of plague now in all Egypt and there is no reason why Europe should not relax all quarantine measures, but no one must stop careful inspection both here and at all European ports. The study of the Alexandria cases confirms the belief that plague is a place disease, probably connected with the soil. Also it looks as if man himself was not the chief agent in the propagation of the disease, though this does not necessarily apply to his clothing, bedding, and carpets.

Regulations for Prostitutes.

The police of Cairo report that the new rules which have now been in existence for two years are working well and are at last doing something to try to prevent the spread of venereal disease. During the year 1898 there were 590 native women sent to the hospital for treatment. This seems a high number out of the 404 who are enrolled on the books as living in 101 registered houses in a special part of the town. For some years now there has been a daily inspection by a police doctor in this quarter and every woman is obliged to present herself once a week. The average age of the women is 25 years, and according to police law none may be enrolled who are not at least 18 years of age, but I have heard of children as young as 10 years of age. These latter are generally fruit sellers or servants in brothels. There are also the shocking cases of girls from 10 to 14 years old who have been sold by their mothers or sisters who are themselves prostitutes. It must be remembered that in Oriental countries a girl is considered marriageable the moment her first menstruation appears. The police openly confess that they can do nothing by law to prevent clandestine prostitution, such as is practised by some 200 European girls in the brasseries, native fruit and flower girls, servant girls, and perhaps 100 married women who act with the full knowledge of their husbands. The native women are usually drawn from the lowest and poorest classes, but to this there are exceptions and there are even some Pashas' daughters occasionally on the list. The Europeans cannot be interfered with excepting with the help of their consul. In Cairo they are mostly Austrian subjects.

Public Health of Egypt.

The weekly death statistics are very favourable this month and the only infectious diseases are small-pox which exists in 15 villages, only 77 cases being reported, typhus and relapsing fevers which account for 29 patients, and measles which provides two patients in distant Keneh.

Cairo, Sept. 18th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Conscription for the Army.

THE last statistical returns give the following details, highly interesting for the light they throw on the development, physical and moral, of young Italy. Of the 420,389 youths inscribed the following were called under arms.

Northern Italy, from	37	districts,	furnishing		44,534
Central	,,	,,	18	,,	,,	19,129
Southern	,,	,,	23	,,	,,	25,943
Insular	,,	,,	10	,,	,,	12,408

Of the causes of dismissal from active service (*riforma*) the chief were deficiency of thoracic girth and constitutional debility—the former including 14,624 men and the latter 13,821. It is Central Italy which, on the whole, provides the most physically robust recruits, while as to those who fail to appear on the day of inscription—in other words, who shirk service—the majority hail from the frontier or maritime provinces and from those in which the emigration movement is most active. The mean stature of the inscribed recruit is 1 metre 63 centimetres. The tallest recruit, reaching 1·98, came from the Roman province, the shortest from Gerace in Calabria. The southern provinces are those which, as a rule, furnish the shortest recruits, while those of Tuscany and Venetia contribute the tallest. As to instruction, the number of "analfabeti" (wholly unlettered or unable to read or write) on the day of enrolment was 37·38 per cent. Those who could read but not write were 8256, or 1·77 per cent. Those who could both read and write were 121,459, or 60 per cent. Northern Italy contributes the mean proportion of 22 per cent. of "analfabeti"; Central Italy, 40 per cent.; Southern Italy, 59 per cent.; and Insular Italy (Sicily, Sardinia, the Tuscan Archipelago, and other islands), rather more than 60 per cent. Piedmont takes first rank, as in all previous statistical years, with a mean of 17 per cent, and Calabria and the Basilicata come last, with a mean of somewhat below 64 per cent. These figures, be it remarked, refer to the day of enrolment, after which defects in instruction are repaired by the regimental teacher. Handicrafts are taught, moreover, in barracks; indeed, the army in Italy, with its instruction, elementary and practical, its discipline, its inculcation of obedience to authority and of punctual habits, is really what it has been called—an educational institution. The practice, too, of quartering a Sicilian regiment in the north, or a Piedmontese or Venetian regiment in the south—in short, of shifting the soldier to districts farthest removed from his birthplace—may be said to continue the educational process and by assimilation of its inhabitants to promote the unity of the kingdom.

The Crusade against Tuberculosis: "Another Cure."

As if in dread that the prevention of tuberculosis may anticipate its cure Italian physicians are striving with each other in the quest for agents to mitigate and remove the disease when fairly established. Besides the experiments of

Maragliano at Genoa and Cervello at Palermo, both of which claim an encouraging measure of success, we have now those of Dr. Carlo Ruata, professor of Materia Medica and Pharmacology in the University of Perugia. At a sitting of the Umbrian Medical Congress recently held there Professor Ruata explained what he calls his "cure of tuberculosis" before a large and sympathetic, if not wholly convinced, audience. Briefly stated, it consists in the graduated continuous inhalation of alcohol, creasote, and chloroform. 11 typical cases of pronounced tuberculosis so treated in his clinique were cured perfectly. Out of another series of cases, 32 in number, he had 22 in which the progress of the disease was arrested so as to put them "out of danger." Further experience of his method, he said, fully warranted his conclusion that it never fails in the earlier stages of the malady and that even in advanced cases it can generally if not invariably achieve an effective cure. The congress, while reserving judgment, expressed much satisfaction with Professor Ruata's paper and congratulated him on having struck out a line of treatment which has only to be developed, if in some respects modified, to give it what Dr. Baccelli called the "rights of citizenship" in clinical medicine. Professor Ruata, author of an excellent treatise on public hygiene, has lately become prominent as the interpreter in Italy of the Anti-Vaccination propaganda unhappily organised in England. As yet, however, he has made few proselytes in the profession which wisely follows the lead of Professor Bizzozzero of Turin, one of the ablest and most trenchant vindicators on the continent of the great Jennerian prophylactic.

Yellow Fever on the Ligurian Riviera.

On Sept. 22nd there arrived in Ligurian waters the steamship *Sirio* hailing from the River Plate with 1094 passengers on board. She was not allowed to put in at Genoa as during the voyage she had had eight cases of yellow fever, of which two had terminated fatally, while the other two recovered and were in full convalescence. The *Sirio* in consequence received orders to make for the sanitary station of Asinara.

Sept. 25th.

Obituary.

JAMES VOSE SOLOMON, F.R.C.S. ENG.

ON Sept. 20th, at the advanced age of 82 years, Mr. Solomon passed peacefully away at his residence, Villafranca, Birmingham. For some years past his condition has necessitated much care and constant attention by his family on account of his gradually failing physical and mental powers. Of his former contemporaries one only survives—Mr. Edwin Chesshire—who happily is in good health and strength at the present time. It is thus, therefore, that we speak of Mr. Solomon as a connecting link with the past—one who in his day and generation led an active life, always upholding the dignity and influence of the profession to which he belonged.

Mr. Solomon was born in 1817 and was the son of a physician practising in Birmingham. After the then customary apprenticeship he entered at St. Bartholomew's Hospital, becoming in 1838 a Licentiate of the Society of Apothecaries and a Member of the Royal College of Surgeons of England, of which latter body he was elected a Fellow in 1854. His practice at first was varied. He was surgeon to the King's Norton Union, to the General Dispensary, to the Orthopædic Hospital, and for nearly 36 years to the Birmingham Police Force. His interest lay chiefly in ophthalmic work and to this he directed his ambition and energies. He was appointed Professor of Ophthalmology at Queen's College and surgeon to the Birmingham and Midland Counties Eye Hospital—an institution second only to Moorfields in size. His contributions to the literature of this subject were numerous—mainly "Tension of the Eyeball; Glaucoma," "Epiphora, or Watery Eye," and "Observations on Some Injuries to the Eye," besides papers communicated to the Ophthalmological Society, THE LANCET, and the *Medical Times*. He was one of the founders of the Birmingham Branch of the British Medical Association and in 1869 was elected President of the branch. In 1882 he was President of the Ophthalmic Section when the Association met in Birmingham, and in 1886 was President of the Birmingham Medical Institute.

As a lecturer Mr. Solomon was always listened to with attention. As a debater he was keen and incisive, with an apt command of language which often discomfited his opponents. His views on the questions of hospital abuse and on club and parochial practice were pronounced and drastic. He expressed himself as favourable to the existence of a law in all medical charities which would permit of a person who has imposed upon the hospital being prosecuted in the county courts for all expenses and fees which he has incurred. To the proposal that every hospital patient should pay something for his relief he replied that such a plan was impracticable, believing that it would demoralise people well able to pay a private surgeon, would ruin one-half of the profession, and destroy much of the poetry of medical life; and, moreover, he held that it was altogether opposed to the sublime model of rightly directed relief which he exemplified by the scriptural story of a certain man by the wayside.

Mr. Solomon was a keen sportsman. He was a frequent follower of the hounds, being a well-known figure owing to the long cloak which he generally wore when on horseback. He took no part in public life beyond the vigorous support of his professional and special duties. He married Miss Baker, the daughter of a Devonshire surgeon, by whom he had three daughters; two of these and his widow remain to lament their loss.

HENRY JOHN ROPE, F.R.C.S. ENG.

THE untimely death of Mr. Rope of Shrewsbury has been a great loss to our profession, for his character and his work were of the very highest excellence and he was one of the best surgeons in the Midlands. He died on Sept. 13th from cerebral tumour, in the fifty-third year of his age. He was born in Suffolk, and throughout his life he retained a singular insight into nature and a most keen love of the country. He received his medical education at King's College Hospital, where he was a house surgeon and an assistant demonstrator of anatomy. Afterwards he was house surgeon at the Salop Infirmary, and then for some years he gave up all thought of his own plans and devoted his whole time to the care of one of his brothers who was an invalid. Then he went back to Shrewsbury and entered into partnership with Dr. Burd whose daughter Agnes he married. He was one of the surgeons of the Salop Infirmary, medical officer to Shrewsbury School, and a president of the Shropshire and Mid-Wales Branch of the British Medical Association; he had also a large surgical practice in and around Shrewsbury. With such a burden of work he had no time for writing and it is to be regretted that he published hardly anything of all his experience in surgery. But all through his life he was greater than his work and those who had the honour of knowing him will remember how he cared only to do the right thing and hated talking about himself; how he spent time and strength where he would never be paid and was content to live in single devotion to the best things and leave the rest. It might be said of him in the common phrase that he "never did himself justice"; he gave himself to help other people and bore the strain of heavy practice, year in year out, putting his own advancement last among all the things that he desired to see. The signs of his fatal illness began about July and he kept on at his work even after he suspected the nature of the disease. The end came quickly. His death was felt through Shrewsbury as a common sorrow—the removal of a man whose life had been help and strength and good example to all men. His widow and six children are left to mourn their great loss.

STANLEY B. DE BUTTS, M.D. BRUX, M.R.C.S. ENG., L.R.C.P. LOND.

A LARGE circle of friends will deplore the loss of Dr. Stanley de Butts. His death, at the age of 34 years, occurred somewhat suddenly on Sept. 20th. Although severely handicapped of late years by his health his enthusiasm for work

never left him and he died literally in harness. He was the third son of the late Major-General de Butts, R.E., and received his education at Cheltenham College and St. Mary's Hospital. After qualifying for the profession he held resident appointments at St. Mary's Hospital, the East Suffolk Hospital, and the Chichester Infirmary, and was for some time surgeon to the Union Steamship Company. Having obtained the post of inspecting medical officer to the Army and Navy Stores he commenced practice in Eaton-terrace, but directed his attention from the first especially to the administration of anæsthetics. He held the post of anæsthetist to the Grosvenor Hospital for Women, to the London Lock Hospital, and to the Royal Ear Hospital, and his skill in this department of work was marked. By his capability no less than by his personal character he had endeared himself to all with whom he came in contact.

EDWARD PENDRILL KING, M.R.C.S. ENG., L.S.A.

MR. EDWARD PENDRILL KING died at his residence, Beaufort-square, Chepstow, on Sept. 23rd, in his sixty-sixth year. He received his medical education at St. Bartholomew's Hospital, London, and took the qualifications of M.R.C.S. Eng. and L.S.A. in 1858 and 1859 respectively. The deceased held several public appointments, being formerly coroner for the Manor of Chepstow, medical officer of health of Chepstow, and also medical officer of the Shirenewton District and the workhouse of the Chepstow Union. Mr. King was assistant surgeon to the 1st Monmouthshire Rifle Volunteers. He had been in failing health for some months past and had recently resigned all his appointments. Mr. King will be much missed in Chepstow, where he was extremely popular, and great sympathy is felt there for his widow.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced.—Dr. Borysiekiewicz, Director of the Ophthalmic Clinic and Professor of Ophthalmology in the University of Gratz, at the age of 50 years.—Dr. Berti, Assistant Professor of Surgery in the Modena Medical School.—Dr. Jules Simon of Paris.—Dr. Taulier of Avignon, Senator for Vaucluse.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—In September the following candidates passed in the subjects indicated:—

Surgery.—N. H. Bonnerjee (Sections I. and II.), Royal Free Hospital; A. F. Carlyon (Sections I. and II.), Middlesex Hospital; A. McC. Dallas (Section I.), Bombay and Guy's Hospital; E. F. Lamport, Royal Free Hospital; A. Orme (Section II.), London Hospital; and W. Rigby (Sections I. and II.), Manchester.

Medicine.—W. P. Allen, Birmingham; A. F. Carlyon (Sections I. and II.), Middlesex Hospital; F. Elias, London Hospital; F. Marriott, Edinburgh; H. J. Pickering (Section II.), St. Bartholomew's Hospital; W. Rigby (Sections I. and II.), Manchester; L. L. G. Thorpe, University College Hospital; H. E. Weston (Section II.), St. George's Hospital; and H. Whittaker, Cambridge.

Forensic Medicine.—W. P. Allen, Birmingham; A. F. Carlyon, Middlesex Hospital; R. F. Ellery, St. Bartholomew's Hospital; F. Marriott, Edinburgh; W. Rigby, Manchester; and L. L. G. Thorpe, University College Hospital.

Midwifery.—F. P. Bush, Guy's Hospital; W. Rigby, Manchester; W. C. Stanham, London Hospital; and G. H. Watson, St. Bartholomew's Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise Medicine, Surgery, and Midwifery:—Messrs. N. H. Bonnerjee, A. Orme, W. Rigby, A. F. Carlyon, and L. L. G. Thorpe.

UNIVERSITY OF DURHAM.—At the third examination for the degree of Bachelor in Medicine held at the College of Medicine, Newcastle-upon-Tyne, in September the following candidates satisfied the examiners:—

Second-class Honours.—Richard Thorne-Thorne, St. Bartholomew's Hospital; Christopher Osmond Bodman, University College, Bristol; and Robert Simpson Hindmarch, Henry Reah, and Alfred Parkin, College of Medicine, Newcastle-upon-Tyne.

Pass List.—Curtis Crispin Adeniyi-Jones and Ernest Bertram Appleby, College of Medicine, Newcastle-upon-Tyne; Frederick Clarkson, St. Thomas's Hospital; Thomas Seymour Coates and Charles Henry Gibson, College of Medicine, Newcastle-upon-Tyne; Ivon Henry Skipwith Hawes, St. George's Hospital; and Albert Ernest Hodge, Hubert Wolstenholme Horan, Kenred Manson, Frederick Riddle Scott, Ralph Thomas Vaux, and John Charles Velenski, College of Medicine, Newcastle-upon-Tyne.

FOREIGN UNIVERSITY INTELLIGENCE.—*Baltimore (College of Physicians and Surgeons):* Dr. W. F. Lockwood has been appointed to the chair of Clinical Medicine and Therapeutics and Dr. Samuel J. Fort to that of Materia Medica and Pharmacology.—*Freiburg:* Dr. Treupel, *privat-docent* of Internal Medicine, has been promoted to an extraordinary professorship.—*Königsberg:* Dr. Pfeiffer of Berlin has been appointed to the chair of Hygiene in succession to Dr. E. von Esmarch.—*Marburg:* Dr. L. Krehl of Jena has been appointed to the chair of Internal Medicine with charge of the medical polyclinic, in succession to Dr. Friedrich Müller who goes to Basle.—*Naples:* Dr. A. Montuori has been recognised as *privat-docent* of Experimental Physiology; Dr. Gennaro Fabiani as *privat-docent* of Topographic Anatomy and Operative Medicine; Dr. Giuseppe Pianese as *privat-docent* of Pathological Anatomy; Dr. Ernesto Benschini, Dr. Orazio D'Allocco, and Dr. Eduardo Germano as *privat-docenten* of Medical Pathology; Dr. Luigi De Gaetano as *privat-docent* of Surgical Pathology; Dr. Rocco Iemma as *privat-docent* of Pædiatry; Dr. Antonio Damieno as *privat-docent* of Laryngology; Dr. Mariano Salaghi as *privat-docent* of Orthopædic Surgery; Dr. Francesco Paolo Sgobbo as *privat-docent* of Electro-therapeutics; and Dr. Orazio Caro as *privat-docent* of Hygiene.—*Turin:* Dr. Zaccaria Treves has been recognised as *privat-docent* of Physiology; Dr. Costanzo Zenoni as *privat-docent* of Pathological Anatomy; Dr. Ferdinando Battistini as *privat-docent* of Medical Pathology; Dr. Giovenale Colonna as *privat-docent* of Surgery; and Dr. Giovanni Condio as *privat-docent* of Midwifery and Gynæcology.

MANCHESTER AND CHORLTON UNIONS: QUESTION OF AMALGAMATION.—For some time the idea of amalgamation between the Manchester and Chorlton Unions has been "in the air." It has been thought that, if amalgamated, as they are really one great town it would enable many matters to be dealt with more conveniently than at present. Already they have combined for certain purposes—such as the provision for tramps and epileptics and the protection of infant life. But at the meeting of the Chorlton Board of Guardians on Sept. 14th, Mr. C. L. Tomlinson presiding, the opinions expressed were not in favour of amalgamation. Their *amour-propre* has been wounded—no doubt unwittingly—by the chairman of the Manchester Board having said that the Chorlton Union was "largely suburban" while Manchester was purely "urban," when he "ought to know" that Hulme with a population of 72,000 was not suburban. Chorlton-on-Medlock has 60,000, Ardwick 35,000, Openshaw 35,000, Rusholme 14,000, and West Gorton 25,000; all these are in the Chorlton Union which has about twice the population of the Manchester Union, so that the former should be called, the chairman thought, "Greater Manchester." The unfortunate use of the term "suburban" has so deeply wounded the hypersensitive chairman of the meeting of the Chorlton Guardians that "he moved that the subject (i.e., amalgamation) be allowed to drop." This was seconded by Dr. O'Doherty who thought that the Manchester Board had not "approached the matter in a spirit of true statesmanship." The two unions are about to spend a quarter of a million in providing for tramps and epileptics, the matter being in the hands of a joint committee, and the chairman objected to the board, "as a board," having no direct control over the expenditure. Presumably the Manchester Board is in the same position. It is clear that at present the Chorlton Board is not in the mood for combining with that of Manchester, even for good, for with regard to joining with it "for the purpose of dealing with phthisis" it was moved and seconded—by a lady—and decided "to reply to the effect that the Board were not disposed to join Manchester in any committees other than those which had been already appointed." It will no doubt have been noticed how belligerent "lady members" are becoming. As a sequel to this decision a letter from the Chorlton Board, dated Sept. 15th, was read at the last meeting of the Manchester Board to the effect "that they now desire to withdraw their proposal for the amalgamation of the union with the township of Manchester and to proceed no further with the matter, as from the report of the proceedings at the recent meeting of your board and

from the evident indisposition of your board to meet them in conference they are convinced that no useful purpose would be served by keeping the matter open." One of the Manchester guardians thought that the figures of the Chorlton Board were rather misleading, that while in Chorlton the paupers were as 1 to 50 in Manchester they were as 1 to 30, that the work was not gauged by the population but by the number of the poor who came under their observation. He said that the members of the joint committee had always worked in perfect harmony and he hoped that they would always continue to do so. Another letter from the Chorlton Board was also read declining to combine "for the purpose of dealing with cases of phthisis." The chairman of the meeting (Mr. J. R. Smith) moved a resolution, which was carried, expressing their regret that the Chorlton Board would not take part in the conference on the question of making provision for the treatment of phthisis. It was, he said, their wish to work in harmony with their "friends and neighbours," the Chorlton Board. Whatever the spirit of the Manchester Board may have been when these matters were "approached," it looks very much as if pique had quite as much to do with the attitude of the Chorlton Board as "true statesmanship." If good can, or cannot, be done by amalgamation it is unfortunate that the discussion cannot be carried on amicably and that what looks like wounded vanity should be allowed to influence the result.

WATER-SUPPLY OF YEOVIL.—The new reservoir, constructed to hold 1,000,000 gallons, is now completed.

BRISTOL JUBILEE CONVALESCENT HOME.—It has been arranged that the visit of Her Majesty the Queen to Bristol for the purpose of opening the Jubilee Convalescent Home shall take place on Wednesday, Nov. 15th.

MEDICAL MAGISTRATE.—Mr. Harold L. Palmer, M.R.C.S. Eng., L.S.A., of Newtown, North Wales, has been appointed a magistrate for the county of Montgomery by the Lord Lieutenant, Sir H. L. Watkin Williams-Wynn, Bart.

TYPHOID FEVER IN CORNWALL.—There were 69 cases of typhoid fever with nine deaths notified in Cornwall during August against 20 cases with four deaths notified in July; 45 of these cases with four deaths occurred at Falmouth.

DEVON COUNTY ASYLUM.—At the meeting of the Devon County Council held on Sept. 21st it was reported that two new blocks of buildings for the reception of 87 patients would be ready for occupation in the course of a few weeks.

LONDON HOSPITAL MEDICAL COLLEGE.—The following entrance scholarships have been awarded: Price Scholarship in Science, value £120, Mr. R. Milne. Price Scholarship in Anatomy and Physiology, for Oxford and Cambridge students only, value £60, Mr. A. W. S. Fisher. Entrance Scholarships, value £47 10s. each, Mr. G. A Soltau and Mr. T. W. Smith (equal).

VACCINATION PROSECUTIONS.—At the Corsham Petty Sessions held on Sept. 21st two persons were summoned for neglecting to have their children vaccinated. A member of the Chippenham Board of Guardians, who appeared for the defence, stated that in both cases the public vaccinator posted his notice on June 9th intimating that he should call on June 11th to offer to vaccinate the children. This date was a Sunday and consequently he did not call on that day. The magistrates held that this information left them no alternative but to dismiss the summonses.—At a meeting of the Trowbridge Board of Guardians held recently a letter was read from the Local Government Board in reference to vaccination summonses. The guardians had recently passed a resolution restricting the powers of their vaccination officer in taking proceedings under the Vaccination Act. The Local Government Board informed the guardians that the duties of a vaccination officer could not be curtailed or restricted by any resolution of the guardians and that any resolution intended to have such effect would be *ultra vires*. The guardians after hearing the letter passed a resolution informing the Local Government Board that they refuse to pay any costs or charges connected with proceedings taken against vaccination defaulters without their sanction.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ACTON, F. C., M.B. Melb., has been appointed Officer of Health for Yackandandah Shire, Victoria, Australia, vice J. Coane, resigned.

BAKER, W. J. T., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the South Sanitary District of the Sheffield Union.

BOVEY, THOS. W. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Abbotsbury District of the Weymouth Union; also for the Long Bredy District of the Dorchester Union, vice W. Hawkins, resigned.

BROADBENT, F. W., M.B., C.M. Edin., has been appointed Clinical Assistant to the Chelsea Hospital for Women, Fulham-road, London.

BUTLER, G. E., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon, Zeehan Hospital, Tasmania.

CROOKE, T. L., L.R.C.P., L.R.C.S. Edin., has been appointed House Surgeon, Christchurch Hospital, New Zealand, vice W. Fox, resigned.

DUFF, J., M.D. Glasg., M.R.C.P. Lond., has been appointed Medical Officer for the Infectious Hospital, Chester.

FFRENCH, E. G., M.B., Ch.B. Edin., has been appointed House Surgeon to the Royal Alexandra Hospital, Brighton.

FRANKLIN, T. E., L.R.C.P., L.R.C.S. Edin., has been appointed Visiting Medical Officer to the Government Institutions at Parramatta, New South Wales, vice W. B. Violette.

GORRINGE, C. J., M.B., M.S. Edin., has been appointed Officer of Health for the Green Ponds, Tasmania.

HEALEY, W. J., L.R.C.P., L.R.C.S. Irel., has been appointed Resident Medical Officer for East Kimberley; also Quarantine Officer at the Port of Wyndham, and Public Vaccinator for the Urban, Suburban, and Rural Districts of Wyndham, West Australia.

JELLETT, J. C., L.R.C.P., L.R.C.S. Irel., has been appointed *pro tem.* Medical Officer and Public Vaccinator for the Cranbrook and Frittenden Sanitary Districts of the Cranbrook Union, vice J. W. Harris, deceased.

JENKINS, E. J., M.D. Oxon., M.R.C.P. Lond., M.R.C.S., has been appointed a Member of the Medical Registration Board of New South Wales, vice M. J. O'Connor.

KEALY, J. P., L.K.Q.C.P. Irel., L.R.C.S., has been appointed Acting Medical Officer at Croydon, Queensland.

KEENAN, A. J. W., M.D. Brux., L.R.C.P., L.R.C.S. Edin., has been appointed a Public Vaccinator for South Australia.

KELYNACK, T. N., M.D. Vict., M.R.C.P. Lond., has been appointed Medical Registrar to the Manchester Royal Infirmary, vice R. T. Williamson, resigned.

KENNY, F. H., M.R.C.S., has been appointed *pro tem.* Resident Surgeon at the Hospital, Gympie, Queensland.

LEARY, W. A. E., M.B., B.S. Dubl., has been appointed Medical Officer for the Hospital, Yalyco, West Australia.

LOXTON, ARTHUR, F.R.C.S. Edin., has been appointed Honorary Surgeon to the Birmingham and Midland Hospital for Skin and Urinary Diseases, vice Leslie Phillips, resigned.

MACBIRNIE, S., M.B., Ch.M. Glasg., has been appointed *pro tem.* Acting Medical Superintendent for the Beechworth Lunatic Asylum, Victoria, Australia.

MACLEAN, R., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Officer of Health for Lawtost Shire, Victoria, Australia, vice F. Ryan, resigned.

MASON, W., M.R.C.S., has been appointed Officer of Health for Meredith Shire, Victoria, Australia, vice A. B. Webb, resigned.

MISKIN, L. J., M.B., B.S. Lond., F.R.C.S. Eng., has been appointed Resident Medical Officer at the Perth Public Hospital, West Australia.

MORICE, R. J., M.D. Aberd., has been appointed Medical Officer at Nanango, Queensland.

QUILTER, J., M.B. Melb., has been appointed Government Medical Officer and Vaccinator for the District of Moruya, New South Wales, vice E. Boot.

RICHMOND, R. T., M.A. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed House Physician to the Royal Hants County Hospital, Winchester.

SAWREY, R. R. R., M.B., Ch.B. Melb., has been appointed *pro tem.* Acting Public Vaccinator at Maldon, Victoria, Australia.

SEED, W. P., L.R.C.P. Lond., M.R.C.S., has been appointed Health Officer for Burbanks, West Australia.

TAYLOR, G. G. S., M.D. Durh., L.R.C.P. Irel., M.R.C.S., has been appointed Honorary Physician to the New Hospital for Cancer and Skin Diseases, Liverpool.

THWAITES, J. S., M.B. Melb., has been appointed Public Vaccinator at Portarlington, Victoria, Australia, vice F. W. Dickens, resigned.

WEBB, A. B., M.B., Ch.B. Melb., has been appointed Officer of Health for the Shire of Ballan, Victoria, Australia, Bush Riding, vice E. W. Plews.

Vacancies.

For further Information regarding each vacancy reference should be made to the advertisement (see Index).

AYR COUNTY HOSPITAL.—House Surgeon for one year. Salary £50 per annum, with residence in the hospital, board, and washing.

BIRMINGHAM AND MIDLAND SKIN AND URINARY HOSPITAL, Birmingham.—Assistant Surgeon.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, unmarried. Salary £100 per annum, with board and residence.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Clinical Assistant, tenable for three months. Fee £3 3s.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary 100 guineas per annum. Also Assistant Physician. Also Second House Physician for six months. Salary at the rate of £30 per annum, with board and residence.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer, unmarried. Salary £100 a year, with board and residence.

DURHAM COUNTY ASYLUM, Winterton, Ferryhill.—Assistant Medical Officer, unmarried. Salary £140, rising by yearly increments to £160, with board, lodging, washing, and attendance.

EDINBURGH INSTITUTION FOR TRAINING SICK NURSES.—Lady Superintendent. Apply to the Secretary, 10, Melville-street, Edinburgh.

EGYPTIAN GOVERNMENT SCHOOL OF MEDICINE, Cairo.—Professor of Ophthalmology. Particulars from F. G. Hallett, Esq., Secretary, Examination Hall, Victoria Embankment, London.

ESSEX AND COLCHESTER GENERAL HOSPITAL, Colchester.—House Surgeon. Salary £100 per annum, with board, washing, and residence in the hospital.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Junior House Surgeon for six months. Salary at the rate of £30 per annum, with board, lodging, and washing in the hospital.

HALESOWEN RURAL DISTRICT COUNCIL.—Female Health Missioner for the district. Salary 30s. per week.

HARRIS PARISH COUNCIL.—Medical Officer and Public Vaccinator for the Southern Division of Harris. Salary £90, other emoluments. Apply to Mr. T. Wilson, Solicitor, Lochmaddy, Clerk.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians for six months. Honorarium £25 each. Also an Assistant Resident Medical Officer. Salary £100 per annum, with board and residence.

HOSPITAL FOR DISEASES OF THE SKIN, 52, Stamford-street, Blackfriars, London, S.E.—Honorary Pathologist.

HOSPITAL FOR THE INSANE, The Coppice, Nottingham.—Assistant Medical Officer, unmarried. Salary £150 per annum, with apartments, board, attendance, and washing.

HOSPITAL FOR WOMEN AND CHILDREN, Leeds.—Non-resident House Surgeon for six months. Salary at the rate of £125 per annum.

LEICESTERSHIRE AND RUTLAND LUNATIC ASYLUM.—Assistant Medical Officer, unmarried. Salary £150, rising by yearly increments of £10 to £200 per annum, with board, lodging, washing, and attendance. Applications to the Clerk, 10, New-street, Leicester.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Assistant Demonstrator of Anatomy. Salary £90 a year.

LONDON TEMPERANCE HOSPITAL, N.W.—Visiting Physician. Honorarium 50 guineas per annum. Also Resident Medical Officer for one year or more. Salary 100 guineas per annum, and board, lodging, and washing.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY, Loughborough.—Resident House Surgeon. Salary £100 per annum, with furnished rooms, attendance, and board.

MANCHESTER ROYAL EYE HOSPITAL.—Junior House Surgeon. Salary £70 per annum, with residence, board, and washing.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium at the rate of £50 per annum and board.

NORTH-EASTERN HOSPITAL FOR CHILDREN, London.—House Surgeon for eight months. Salary at the rate of £50 per annum. Applications to the Secretary, City Office, 27, Clement's-lane, Lombard-street, E.C.

NORTHERN EMPLOYERS' MUTUAL INDEMNITY COMPANY, King-street, Wigan.—Medical Officer for the Company in Lancashire.

PARISH OF FULHAM, London.—Resident Medical Superintendent of the Infirmary and Medical Officer of the Workhouse. Combined salary at the rate of £300 per annum, in addition to residence (partly furnished), fuel, lights, and washing, subject to statutory deductions. Applications to the Clerk to the Guardians, 75, Fulham Palace-road, Hammersmith, W.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments, board, and washing. Also Assistant Physician.

ROYAL INFIRMARY, Hull.—Senior House Surgeon for two years, unmarried. Salary 100 guineas per annum, with board and furnished apartments.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House Surgeon. Salary £30, with board, residence, and laundry.

SALOP INFIRMARY, Shrewsbury.—Assistant House Surgeon for six months. Salary at the rate of £40 per annum, with furnished apartments, board, and washing.

SANITARY INSPECTORS' EXAMINATION BOARD, Adelaide-buildings, London-bridge.—Four Examiners.

SCHOOL BOARD FOR LONDON.—Medical Practitioners to give lectures on first aid and home nursing to the pupils of the evening continuation schools. Apply to the Clerk of the Sub-committee on Evening Continuation Schools, School Board for London, Victoria-embankment, E.C.

SEAMEN'S HOSPITAL SOCIETY, "DREADNOUGHT," Greenwich.—Senior House Surgeon for the Branch Hospital in the Royal Victoria and Albert Docks, E. Salary £75 per annum, with board and residence and an additional £25 per annum conditionally. Apply to the Secretary, Greenwich, S.E.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing.

VICTORIA UNIVERSITY, Manchester.—External Examiner in Anatomy for three years.

WEST RIDING ASYLUM, Wakefield.—Fifth Assistant Medical Officer. Salary £100 per annum, rising £10 annually to £150, with furnished apartments, board, washing, and attendance.

WORKSOP, Notts.—Medical Officer at the Worksop Dispensary, unmarried. Salary £120 per annum, with house, coals, gas, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

BATTERSBY.—On Sept. 26th, at 14, Balby-road, Doncaster, the wife of J. H. Battersby, M.D., of a daughter.

BREWIS.—On Sept. 26th, at Wellington, co. Durham, the wife of E. J. Brewis, M.D., of a son.

FULTON.—On Sept. 24th, at The Bungalow, Lee-on-the-Solent, Hants, the wife of Henry Fulton, M.D., of a son.

GILES.—On Sept. 22nd, at Glossop-road, Sheffield, the wife of Leonard Giles, M.B., F.R.C.S., of a daughter.

HAMERTON.—On Sept. 9th, at Southampton-street, Strand, the wife of G. A. Hamerton, F.R.C.S. Eng., of a daughter.

HINDLEY.—On Sept. 25th, at Queen's-road, N.E., the wife of Godfrey Hindley, M.R.C.S., L.R.C.P., of a daughter.

JONES.—On Sept. 23rd, at Church-terrace, Lee, London, S.E., the wife of George Jones, M.B., of a daughter.

JOHNSON.—On August 28th, at Kerak, Moab, Palestine, the wife of Frederick Johnson, M.B., F.R.C.S., of a daughter.

LEES.—On Sept. 22nd, at Bars House, Chester, the wife of William Lees, M.R.C.S., of a daughter.

MOIR.—On Sept. 23rd, at Hawthorn House, Darwen, Lancashire, the wife of William Moir, M.D., of a son.

REYNOLDS.—On Sept. 24th, at Chedworth, Orleans-road, Hornsey-rise, N., the wife of Austin R. Reynolds, M.R.C.S., &c., of a daughter.

SMITH.—On Sept. 25th, at Warkworth House, St. Thomas, Exeter, the wife of Thomas Smith, M.R.C.S., L.R.C.P. Lond., of a son.

WADE.—On Sept. 23rd, at The Elms, Ponders-end, N., the wife of Herbert Wade, M.R.C.S. and L.R.C.P., of a daughter.

MARRIAGES.

LARCOMBE—BROWNJOHN.—On Sept. 23rd, at St. Peter's, Regent-square, London, by the Rev. Sir John Cæsar Hawkins, Bart., cousin of the bride, and the Rev. R. H. A. Bradley, M.A., vicar of the parish, uncle of the bride, Samuel Slee Larcombe, M.R.C.S., L.R.C.P., of Grange-crescent, Sunderland, second son of the late John Larcombe of Langport, to Eleanor Caroline, second daughter of the Rev. S. D. Brownjohn, B.A., of 46, Powis-square, London, W.

LAVER—CONOR.—On Sept. 21st, at St. Andrew's, Ashley-place, S.W., Philip Guyon Laver, L.R.C.P., M.R.C.S., second son of Henry Laver, surgeon, of Colchester, to Constance Mary (May), only daughter of Colonel Cecil Conor, late commanding 1st Battalion Duke of Wellington's (West Riding) Regiment.

LILLIE—AYSCOUGH.—On Sept. 19th, at St. John's Church, Folkestone, Cecil Fermin Lillie, M.A., M.B. Cantab., youngest son of the Rev. W. Lillie, rector of Newchurch, Kent, to Caroline Margaret Lucy, youngest daughter of the late Rev. G. B. Perry Ayscough, vicar of Brabourne, Kent.

MARSH—CREW.—On Sept. 27th, at Prestbury Church, by the Rev. W. H. Bonsey, John Hedley Marsh, M.R.C.S., L.R.C.P. Lond., Medical Officer of Health for Macclesfield, eldest son of the late John Marsh of Sale, to Florence May, youngest daughter of Thomas Crew, of Park Villa, Macclesfield. No cards. At home (Cumberland House, Macclesfield), Oct. 24th, 25th, 26th.

STONER—HALL.—On Sept. 26th, at the parish church, Brighton, Harold Stoner, M.R.C.S., L.R.C.P., L.D.S. Eng., of Regency-square, Brighton, to Ethel Mary, second daughter of Edwin Penfold Hall, of Grand Parade, Brighton.

DEATHS.

COLLINGWOOD.—On Sept. 23rd, at Ringwood, Hants, David Collingwood, M.D., B.S., F.R.C.S., aged 41.

KING.—On Sept. 23rd, at Chepstow, Edward Pendril King, M.R.C.S., L.S.A., son of the late Thomas King, F.R.C.S., of Chepstow, aged 64 years.

WHITE.—On Sept. 24th, at Lansdowne-terrace, Eastbourne, Joseph White, F.R.C.S. Edin., D.C.L., of Southwell-gardens, Queen's-gate, S.W., aged 77 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths

Notes, Short Comments, and Answers to Correspondents.

MEDICAL FEES FOR ATTENDANCE ON A MEDICAL MAN.

AT Marylebone County Court this week before Judge Stonor Mr. Dods and Mr. Storey, medical practitioners of Marylebone-road, London, W., claimed nine guineas from Mr. Ernest Newnham, also a medical man, of Dorset-square, N.W., for professional services rendered. The circumstances are interesting to medical men. Mr. Storey said that in January, 1898, he was called in to attend the defendant who was then in very ill-health. He paid a large number of visits, both night and day. At the defendant's request he sent in an account, which, however, had since been disputed.—Mrs. Newnham, wife of the defendant, said that her husband was ill at Margate and could not attend the Court. For 20 years her husband had held a Government medical appointment in the Cape. She did not deny that the plaintiff had attended her husband, but maintained that he did so "merely in a friendly way." On one occasion she said to the plaintiff, "When shall I pay you, doctor?" and his reply was, "Oh, don't mention that, Mrs. Newnham." She had always understood that medical men did not expect a fee for attending another gentleman in the profession. Moreover, Mr. Storey usually came in friendly fashion to have a chat, soda-and-whisky, and cigarettes.—Cross-examined: Mr. Storey stated more than once that his attendance would be gratuitous. When she spoke to the plaintiff about payment she did so merely as a matter of courtesy.—Mr. Allan Nicholson, a friend of the defendant, stated that he heard Mr. Storey say, "No medico would charge a brother medico for attendance." On one occasion, continued the witness, he said to Mr. Storey, referring to the defendant's case, "I am afraid it will be a long job"; and the reply was, "But it will not cost him anything."—Miss Catherine Louisa Nicholson, daughter of the last witness, said that the plaintiff had also attended her when she was ill but had sent in no account.—Counsel for the defence submitted that the custom among medical men was not to charge one another for professional attendance.—The Judge: Yes, that is common knowledge. But the point here is: What was the understanding between the parties? If something affecting the point had not been said I should be disposed to say that the custom was binding. I think it would be best for the parties to try to come to some arrangement.—After some discussion it was decided to leave the matter entirely in his Honour's hands.—The Judge: I do not think that all the visits were required for professional purposes and it is evident that the matter has been treated very loosely on both sides. I find for the plaintiff for four guineas, but I shall allow no costs.

We agree with Judge Stonor that the case was one for the parties to settle among themselves. The fact that medical practitioners do not charge other members of the medical profession, their wives, and their children fees for medical attendance is perfectly well known, but such gratuitous attendance is given out of courtesy, and particular circumstances have always to be taken into account. This we have had occasion to point out in our columns. For example, the children of medical men when they are independent of parental support have no longer any claim upon the kindness of members of their father's profession. Where such children are not in affluent circumstances they are, as a matter of fact, always accorded gratuitous advice, but this widespread generosity should not be taken advantage of by more fortunate persons. Again, where the medical man who seeks advice from a brother practitioner is obviously the wealthier man of the two and in consequence offers to pay fees—as he generally does—there is no reason whatever why the offer should not be accepted. It is inexpedient to put a person under an obligation which he prefers not to incur.

Where a medical man's services are requisitioned by another medical man under circumstances which seem not to be quite covered by the broad rule of fraternal courtesy that no charge will be made the question of remuneration should be at once and frankly raised. Otherwise feelings of soreness and dissatisfaction are sure to be engendered and possibly some such undignified dispute as that which we have recorded above will follow. The explanation to which Judge Stonor advised the two litigants to have recourse at a late hour should take place at the beginning of the professional relations. When it is clearly recognised by both patient and medical attendant that no fees, that modified fees, or that full fees will be charged, room does not remain for misunderstanding; and undignified gossip to prove that certain visits were social or convivial rather than professional will be unnecessary. We advise all our readers—and we know how they will act whether we advise them or not—to stretch to the utmost limit of fairness to themselves the practice of affording gratuitous help to members of our profession, their wives, and their children. But we advise them also to speak their minds at once when they consider that the circumstances of the case call for an exceptional attitude. There is nothing indelicate in doing so and awkward misunderstanding may thus be obviated.

"THE HOLDING OF INQUESTS."

To the Editors of THE LANCET.

SIRS,—I shall be grateful if you will insert the following facts relative to my attendance on Annie Spear, into the circumstances attending whose death an inquest was recently held at Little Petherick. The cutting from the *Western Morning News* which you quote in your issue of Sept. 23rd concludes thus: "It rested with himself (the coroner) to decide whether it was necessary to hold an inquest, and he warned Dr. Marley that he was to be more careful in giving certificates of death." Now, I had attended the above many years as parochial medical officer. About three years ago she had a severe attack of acute rheumatism, leaving the heart in a very bad condition. On June 28th she had another attack of acute rheumatism which caused more cardiac mischief. About three months ago I was again called in to see her, and found she had ascites and œdema of both legs. By treatment these symptoms were alleviated; so much so that her mother thought her better in every respect, but I warned her that the heart could never be improved and I considered her life uncertain. I may say that I saw her two or three times weekly until her death, my last visit being on the Friday previously to her death, which took place on the following Monday. I still consider that I was fully justified in certifying the death, more especially that on her being taken suddenly worse, five or six neighbours were present before she expired.

I am, Sirs, yours faithfully,

The Nook, Padstow, Sept. 22nd, 1899. HENRY F. MARLEY.

HAT-PINS.

THE cruel-looking steel spikes with which women fasten their hats to their hair have on more than one occasion been the means of doing serious injury to other persons than the wearers, both accidentally and maliciously. Last week a most singular and at the same time serious accident is reported to have happened on an omnibus travelling along the south side of St. Paul's Cathedral. A gust of wind carried a lady's hat from her head together with the pins with which it was fastened, and the point of one of the pins entered the eye of a gentleman sitting behind her. No doubt some means are necessary to render a woman's hat secure on her head, and possibly no method can be devised so simple and efficacious as pins, but women owe it as a duty to their fellow creatures as well as to their own appearance to see that the pins are properly adjusted. They should not become whirling missiles at the onset of the wind, and when at rest they need not protrude half a foot on either side of the hat.

"THE FUND FOR THE RELIEF OF THE WIDOW OF THE LATE MR. H. KINGSLEY HUNTER, L.S.A."

To the Editors of THE LANCET.

SIRS,—Permit me to acknowledge the receipt of the under-mentioned additional subscriptions, making a total of £108 14*s.* 3*d.*:—Mr. W. Armstrong (Buxton), 10*s.* 6*d.*; Mr. T. L. Gentles (Derby), 10*s.*; and Dr. William J. Mackie (New Zealand), £2.

I am, Sirs, yours faithfully,

RIVERS WILLSON, Treasurer.

42, Wellington-square, Oxford, Sept. 26th, 1899.

MEDICAL CERTIFICATES IN THE LAW-COURTS.

ON Sept. 27th a medical certificate was handed to Judge Emden at the Lambeth County-court in support of an application to adjourn a case. His Honour is reported as saying that "he would never again pay any attention to medical certificates which did not specifically state the complaint from which the patient was suffering. In this case the doctor said, 'I consider him unfit to attend the court.' That was not a question for the medical man to decide; it was for the court to decide." We dare say it is possible that illnesses of the type of that from which Colonel Du Paty de Clam has so recently suffered are not unknown on this side of the Channel, but circumstances must often arise when a medical man is not justified in stating on a certificate which may be read in open court the exact nature of an illness. To do so might be a distinct breach of medical confidence. Judge Emden also spoke somewhat slightingly of medical certificates which had previously come before him. We believe that the medical profession as a whole are very scrupulous in giving these certificates. Perhaps his Honour does not sufficiently appreciate the difficulties attending this duty of medical men.

"CHLOROFORM ANÆSTHESIA—A QUERY."

To the Editors of THE LANCET.

SIRS,—Referring to the query from Mr. J. Bell of Hong-Kong in THE LANCET of Sept. 23rd (p. 869), perhaps Mr. Bell would state the precise volume of chloroform which at the time of the death had been used from the graduated Krohne bottle, and the time over which the inhalation of this volume of chloroform had been spread, also the age and character of the patient, and the operation about to be done.

Safety lies in keeping down the percentage-volume of chloroform vapour in the air which is inspired. This should range from 1 to 2 per cent. At 2 per cent. the point of danger has arrived, and the nearer the chloroform vapour is kept down to 1 per cent. the safer and the quieter is the anæsthesia. Chloroform vapour is a much more powerful poison than is generally realised, and for the reason that, with the ordinary method of administration, a very large

though quite uncertain, proportion of the chloroform used is lost in the atmosphere and never reaches the blood of the patient. It thus comes about that men talk about using four or six fluid drachms of chloroform without any apparent perception of the fact that from 30 to 40 minims of chloroform in the blood of a man of average weight is a lethal dose. The problem, therefore, is to administer the chloroform so as to prevent waste, and thus to know precisely how much chloroform has gone into the blood and tissues of the patient. Upon this basis, what remains is to know how much chloroform it takes to charge the system up to the point of comfortable anæsthesia, and thenceforth how much additional chloroform should be inspired in order to maintain the necessary and safe charge of chloroform in the blood and tissues for the number of minutes during which the anæsthesia is to be maintained. The latter is simply a question of the rate at which chloroform is exhaled by the lungs and skin. This can be judged of by the time which it takes for a patient to recover after the inhalation of the chloroform has been stopped. If administered upon these lines, chloroform is a safe and pleasant anæsthetic—certainly the most efficient and reliable, and in my opinion the safest of them all.

The improved Krohne inhaler with the feather-indicator has an air-orifice many times larger in area than the glottis, and this orifice is always open. I should therefore term it a perfectly "open inhaler." The vulcanite mask does not limit the respiration in any way, its purpose is simply that of a mixing-box or air-chamber in which the air about to be inspired is mixed with that volume of chloroform vapour which is injected into the mixing-box at the ebb-tide of expiration—i.e., at the moment when inspiration is about to recommence. By following Krohne's directions for the use of the bellows, a definite dose of chloroform vapour is injected into the mixing-box for each inspiration. This commences with an almost infinitesimal dose and is increased at such rate as the judgment of the administrator and the mass of the patient may require—provided only that it be fully realised that when each inspiration contains 2 per cent. of the vapour of chloroform the point of danger to life has fully arrived. Of course a reckless pumping of the bellows will raise the percentage of chloroform vapour to a lethal point, but this cannot occur if only Krohne's printed directions are attended to and the amplitude of each squeeze of the bellows is duly graduated. In Krohne's inhaler the volume of air projected through the chloroform by each squeeze of the bellows is cleverly made to measure the amount of chloroform vapour with which each inspiration is charged. To my mind, this is the incomparable excellence of the Krohne inhaler. It is this method of charge-measurement which gives all the refinement to its results. To measure out a minute and equal fraction of a minim of chloroform for each successive inspiration in a continuous series of inspirations, and to gradually increase or diminish at will the magnitude of this fraction with the flow of successive inspirations would be an impracticable task by means of any other apparatus. But it is easy enough to measure air out—from volumes of a fourth of a cubic inch up to four cubic inches—by the mere amplitude of the squeeze which is given to a five cubic inch indiarubber ball. And these respective volumes of air, when projected through the chloroform in a series of fine bubbles take up a charge of chloroform vapour which is exactly determined by the temperature of the chloroform. As this temperature can be kept practically constant, the larger or smaller volume of air projected through the chloroform becomes an exact and certain measure of the percentage of chloroform vapour which is injected into the mixing-box for each inspiration. It is this which gives the possibility of minute division to the minim of chloroform, and which enables the exactitude of the dosage to be automatically maintained by means of the Krohne inhaler—provided only that Krohne's directions for its use are intelligently understood and carefully followed. In fact, Krohne's combination of the elastic air-bellows with the vulcanite mixing-box constitutes a perfect volumetric apparatus. By means of this volumetric apparatus, *the vapour of the chloroform* (not the liquid chloroform) is diluted and measured out for each inspiration at the will of the administrator. The feather-indicator demonstrates the rhythm and amplitude of each respiration to every intelligent eye in the room. I regard the feather-indicator as of the greatest value in the combination. It disturbs no one but it shows everything.

I have used the improved Krohne inhaler for years and with so much comfort, such entire freedom from anxiety, and such admirable results, that I should now think it a crime to use any other inhaler.

In using the Krohne inhaler, the mask should be put on to the face and the patient got to breathe through it without any use of chloroform until the patient has got comfortably settled and all his nervousness has passed off. Then a squeeze of small amplitude should be given to the bellows at the end of every other inspiration so as just to give a pleasant taste of chloroform to the air inspired. This having been accomplished without provoking cough or spasm, the same amplitude of compression should be given for each inspiration, and thenceforward the amplitude of each squeeze should be increased until adequate anæsthesia is induced without cough, spasm, or struggling. If these occur it is because the percentage is excessive. Anæsthesia having been induced, the dosage must be reduced to that point which just counteracts the loss by exhalation in expiration from the lungs and in transpiration from the skin. Stertor should never be permitted to occur. All this is done by a mere varying of the amplitude of the squeeze which is given to the bellows, and sometimes by intermitting the squeeze altogether.

Time is essential for the safe induction of anæsthesia. What kills the patient is the precipitation into the lungs of air charged with a high percentage of chloroform and which acts in concentrated form upon the lungs and heart. This concentrated vapour kills before anæsthesia is even induced. The vapour must be instilled into the system so slowly as not to blunt the reflexes of the respiration and circulation—until after the whole mass of the blood has been uniformly charged with chloroform and until all the tissues have been penetrated with their dosage of chloroform. The anæsthesia should begin in the brain and general system and must not begin in the automatic vital functions of the lungs and heart. If the breathing be watched or listened to, spasm or stertor are at once felt when they occur. They are the harbingers of death.

I am, Sirs, yours faithfully,
Manchester-square, W., Sept. 26th, 1899. James Edmunds.

"DUPLICATE NOTIFICATIONS UNDER THE INFECTIOUS DISEASES (NOTIFICATION) ACT."

To the Editors of The Lancet.

Sirs,—In reference to the letter of "Exanthem" in The Lancet of Sept. 23rd, p. 869, I would advise him to ask his local board for an undertaking that they will not prosecute him for the penalty of 40s. if he does not report a case when he is the second medical man called in—the first having reported. If they decline to give the undertaking I should then take out a summons in the county court for the recovery of the two fees.

I am, Sirs, yours faithfully,
Sept. 23rd, 1899. Notification.

THE COST OF LIVING IN ALGIERS.

To the Editors of The Lancet.

Sirs,—Can you or some of your readers give me any information as to the cost of living in Algiers? I have a patient, a boy, aged 13 years, for whom Algiers has been advised for this winter. Can he and his mother live with the necessary comfort required by a boy who has had suppurating cervical glands and indefinite but disquieting lung symptoms for a maximum of £15 per mensem? The lad is not at present actually ill but he tires very quickly. I should be very glad of any information as to the possibility.

I am, Sirs, yours faithfully,
Hammersmith, W., Sept. 22nd, 1899. W. E. C. Musson.

MEDICAL ETHICS IN HIGH PLACES.

To the Editors of The Lancet.

Sirs,—About two months ago I sent a patient to a leading London specialist for operation. Last week I met him (my patient) driving through the town. Inquiring whether he was just arriving back from London he informed me he had come home a week ago. Also that Dr. B. had sent a nurse with him to continue the treatment. Surely, it was not too much for me to expect that Dr. B. would advise me of the patient's return and at the same time give me some notes of the case; but what do you think, Sirs, of his sending a nurse with him to continue the treatment to the exclusion of the ordinary medical attendant?

I am, Sirs, yours faithfully,
Sept. 26th, 1899. An Ordinary Medical Attendant.

J. A. R.—We do not know a book having exactly the scope mentioned. The seventeenth volume of the "Twentieth Century Practice of Medicine" contains probably the latest account of the pathology of cancer, though any of the ordinary text-books of pathology, such as Hamilton's, Green's, or Payne's, will be found to contain almost as much. If our correspondent will mention any particular point in the pathology of cancer, about which he desires information we shall be happy to supply it if possible.

Embryo will find all the information he requires in the Students' Number of The Lancet published on Sept. 2nd, 1899. We have not as a rule recommended books for laboratory work because the student will find it advisable to use the book suggested by the demonstrator.

A. J. W.—The best text-books are "Psycho-Therapeutics," by Dr. C. Lloyd Tuckey, and "The Practice of Hypnotic Suggestion," by Dr. G. C. Kingsbury. We do not recommend individual practitioners.

A Retired Medical Officer will find that at different times all the grievances that he speaks of have been mentioned in The Lancet.

H.—The paragraph is an unfortunate one, but we have no evidence that the lady inspired it.

R. G. will find in our advertisement columns the information that he requires.

Communications not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received: *Northern Daily Telegraph, Glasgow Daily Record, Literary Digest, Health, Madras Standard, Leicester Daily Post, Halifax Guardian, West Morning News, London Observer, Daily News, Fifeshire Advertiser, Middlesex Chronicle, Glamorgan Times, Caterham Free Press, Dundee Advertiser, Chester Chronicle, Bradford Observer, Herald (Barrow-in-Furness), Peterhead Sentinel, Lincoln Gazette, Bristol Mercury, East Anglian Daily Times, Architect, Citizen, Times of India, Pioneer Mail, Lancashire Daily*

Post, Birmingham Daily Gazette, Sussex Daily News, Scotsman, Builder, Southampton Times, Newcastle Daily Chronicle, Leeds Mercury, Hull News, Liverpool Daily Post, Sheffield Daily Telegraph, Westminster Gazette, Western Mail, Nottingham Daily Guardian, Kent Messenger, Surrey Mirror, Cheltenham Mercury, Yorkshire Post, Brighton Gazette, Sydney Mail, Sanitary Record, Mining Journal, Hertfordshire Mercury, City Press, Reading Mercury, Surrey Advertiser, Sidmouth Observer, Manx Sun, Local Government Journal, Local Government Chronicle, Australasian Medical Gazette, Irish Times, Weekly Free Press and Aberdeen Herald, North Herts Journal, Chesham Advertiser, South Africa, &c., &c.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Sept. 28th, 1899.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Sept. 22	29·73	N.W.	0·18	106	65	48	50	54	Fine
,, 23	29·96	W.	...	100	62	45	48	50	Fine
,, 24	29·92	N.W.	...	105	62	47	52	53	Cloudy
,, 25	29·80	W.	0·04	103	67	47	53	57	Cloudy
,, 26	29·62	S.W.	...	102	63	51	51	55	Fine
,, 27	29·56	S.W.	...	95	62	49	50	53	Overcast
,, 28	29·65	S.W.	0·07	99	62	44	46	48	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (2nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (3rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.).

WEDNESDAY (4th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.).

THURSDAY (5th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.).

FRIDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.).

SATURDAY (7th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 P.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY (4th).—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by the President, Dr. W. Duncan, and others. Papers:—Dr. Williamson: The Pathology and Symptoms of Hydatidiform Degeneration of the Ovarium.—Dr. Herman: Two Cases in which Life appeared to have been Saved by Anti-streptococcic Serum.

FRIDAY (6th).—WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich-road, S.E.).—8.45 P.M. Annual Business Meeting. Clinical Cases by Dr. Toogood, Dr. Dockrell, Mr. Clarke, Dr. Sunderland, and Mr. Parke.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

THURSDAY (5th).—THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Lees: Rheumatism in Children.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index to Vol. I. of 1899, which was completed with the issue of June 24th, and the Title-page to the Volume, were given in THE LANCET of July 1st.

VOLUMES AND CASES.

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—THE LANCET, 22nd July, 1899.

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(See THE LANCET, July 29th, 1899; BRITISH MEDICAL JOURNAL, Feb. 27th, 1897; CENTRALBLATT DER PHYSIOLOGIE, Bd. iii., p. 484.)

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